




**U.S. Army
Environmental
Center**

BRAC Cleanup Plan Version I

Military Ocean Terminal, Bayonne Bayonne, New Jersey

July 1997
Contract No. DACA31-94-D-0062
Delivery Order No. 0001
ELIN A013

Prepared for:
**Commander
U.S. Army Environmental Center
Aberdeen Proving Ground, Maryland 21010-5401**

Prepared by:
 **ecology and environment, inc.
1700 North Moore Street
Arlington, Virginia 22209**

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List of Acronyms

AAFES	Army and Air Force Exchange Service
ACM	Asbestos-Containing Material
AMSL	Above mean sea level
AR	Army Regulation
ARARs	Applicable or Relevant and Appropriate Requirements
ASTs	Aboveground storage tanks
ATMs	Alpha Track Monitors
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Base Realignment and Closure Act of 1988 and Defense Base Realignment and Closure Act of 1990, collectively
BTC	Base Transition Coordinator
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act
CFR	Code of Federal Regulations
CRP	Community Relations Plan
CWA	Clean Water Act
DBOF	Defense Business Operations Funds
DEH	Directorate of Engineering and Housing
DoA	Department of the Army
DoD	United States Department of Defense

DPW	Department of Public Works
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECAS	Environmental Compliance Assessment System
ECOP	Environmental Condition of Property
EIS	Environmental Impact Statement
EMO	Environmental Management Office
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FONSI	Finding of No Significant Impact
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
GSA	General Services Administration
IRP	Installation Restoration Program
LBP	Lead-based paint
LRA	Local Redevelopment Authority
LR Plan	Local Reuse Plan
MEDDAC	Medical Department Activity
MOTBY	Military Ocean Terminal, Bayonne
MSC	Military Sealift Command
MSDS	Material Data Safety Data Sheets
MTMCEA	Military Traffic Management Command, Eastern Area
MTMTS	Military Traffic Management and Terminal Service
NEPA	National Environmental Policy Act
NFRAP	No Further Response Action Planned
NJDEP	New Jersey Department of Environmental Protection
NJPDES	New Jersey Pollutant Discharge Elimination System
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NSC	Naval Supply Command
NSD	Naval Supply Depot

NSRDF	Naval Supply Research and Development Facility
OMA	Operation and Maintenance Account
OU	Operable Unit
PCBs	Polychlorinated Biphenyls
POL	Petroleum, oil, and lubricants
POVs	Privately owned vehicles
PP	Proposed Plan
PX	Post Exchange
QA/QC	Quality assurance/quality control
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
R&D	Research and Development
SARA	Superfund Amendments and Reauthorization Act of 1986
SPCC	Spill Prevention Control and Countermeasure
SPPP	Stormwater Pollution Prevention Plan
STP	Sewage Treatment Plant
TSCA	Toxic Substances Control Act
UN	United Nations
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventative Medicine
USAEC	United States Army Environmental Center
USAEHA	United States Army Environmental Hygiene Agency
USAHC	United States Army Health Clinic
UST	Underground Storage Tank

Executive Summary

This Base Realignment and Closure Plan (BRAC) Cleanup Plan (BCP) provides the status, strategies, and schedules for the BRAC environmental restoration, compliance, and disposal programs at the Military Ocean Terminal, Bayonne (MOTBY).

The BCP was created to meet the requirements of the Department of Defense as developed from the following laws: the Base Closure and Realignment Act of 1988; the Defense Base Closure and Realignment Act of 1990; the National Environmental Policy Act; the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Community Environmental Response Facilitation Act (CERFA); the Resources Conservation and Recovery Act (RCRA); and many other laws.

In its efforts to facilitate oversight of the BRAC process at many facilities nationwide, the Department of Defense has developed a standardized form to be completed for use in all BCPs as the executive summary. The form provides an macro-level overview of the information presented in the rest of the document including a property summary, funding summary, and a program summary.

The BCP Abstract does not include information on current program developments or actions items under consideration by the BRAC Cleanup Team. These items, identified throughout the text, are also listed in Table ES-1 for quick reference.

BRAC CLEANUP PLAN (BCP) ABSTRACT
Department of Defense Component ARMY

Installation

Name: Military Ocean Terminal, Bayonne
FFID: NJ-213522752
Location: Bayonne, New Jersey

Date

Prepared: April 1997
BRAC Round: IV
BRAC Type: Closure

INSTALLATION SUMMARY

Scheduled Operational Closure Date:	<u>2001 07</u>	Date CERFA EBS Submitted:	<u>1997 01</u>
Actual Operational Closure Date:	<u>TBD</u>	Number of CERFA Acres Proposed:	<u>54^b</u>
		Number of CERFA Acres	
		Concurred:	<u>TBD^b</u>
Total Number of Installation Acres:	<u>678.80^a</u>	Date CERFA Concurrence	
Acres Retained by Component:	<u>0</u>	Received:	<u>TBD</u>
Acres to be Transferred to another component:	<u>0</u>	Date BCT Formed:	<u>1996 03</u>
Acres Planned for Federal Transfer:	<u>± 25^a</u>	Date Initial BCP Completed:	<u>1996 10</u>
Acres Planned for Non-Federal Transfer:	<u>653.80^a</u>	Date of Last BCP Update:	<u>N/A</u>
Total Number of Excess Acres:	<u>678.80^a</u>	Date RAB Established:	<u>1996 04</u>

Total Number of Acres Environmentally Suitable for Transfer: 0
 Total Number of Acres Eligible for Disposal: 678.80^a

Types of Acres	Category of Environmental Condition of Property ^b						
	1	2	3	4	5	6	7
Acres according to CERCLA	54	0	0	10	156	164	294

Types of Environmental Condition	Number of Acres ^{a,c}
Petroleum, oils, and lubricants	256
Unexploded ordnance	0
Areas that require protection because of the presence of natural or cultural resources	TBD
Asbestos	227
Lead-Based Paint	241
Radon	0
PCBs	0 ^d

Activity	Installation Budget (\$000)								
	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03-Completion
Restoration	*	1,349	1,698	280	2,551	2,196	1991	2,161	TBD
Compliance	*	*	785	1,712	1,463	713	188	TBD	TBD
Planning	379	285	857	320	310	310	310	TBD	TBD
Management	20	109	162	162	162	162	85	TBD	TBD
TOTAL	399	1,743	3,502	2,474	4,486	3,381	2,574	2,161	TBD

* Not available at this time.

REUSE PLANNING STATUS

Name of LRA: Bayonne MOT Base Reuse Commission

Status of the Redevelopment Plan: Preliminary interest identified by LRA. Anticipating base reuse plan by October 1997.

Projected Date of Installation-Wide Disposal and Reuse EA/EIS: 1998 01 EIS^e

Actual Date of Installation-Wide Disposal and Reuse EA/EIS: N/A

Final Property Disposal Date: 2001 07

Actual Acres Leased to Federal Entity:

0

Actual Acres Transferred to Federal Entity:

0

Actual Acres Leased to Non-Federal Entity:

0

Actual Acres Transferred to Non-Federal Entity:

0

	FOST	FOSL
Cumulative NUMBER Completed	0	0
Cumulative ACRES Completed	0	0
NUMBER Projected in Next Fiscal Year	1 (LRP)	1 (LRP)
ACRES Projected in Next Fiscal Year	6	6

RESTORATION PROGRAM

Summary: Environmental restoration is being conducted under the authority of RCRA and CERCLA due to the nature of environmental concerns. The facility is not, nor expected to be, listed on the NPL. Currently, 10 areas are recognized as contaminated; however, many other areas will be investigated during a facility-wide RI/FS. Media of concern include soil, groundwater, surface water, and sediment.

Major problems of concern include POL contamination, hydraulic fill considerations, generalized pollution of New York Harbor, and discharges to the sewer systems.

- Through the BCT process, general consensus was achieved on the hydraulic fill issue at MOTBY, namely, with the exception of a small portion on the eastern edge of the site, it can be clearly documented that MOTBY is made up of fill material. Therefore, a Declaration of Environmental Restriction (DER) will be issued for the entire property. In individual cases for which unrestricted use is desirable, the specific areas would require further investigation/remediation pursuant to New Jersey regulations.

- The issues of generalized pollution in New York Harbor and discharges to the sewer system will be addressed under the remaining remedial investigation as part of the site-wide groundwater issues being considered.

	Site Name	Date
Final Remedy in Place/Response Complete:	<u>N/A</u>	<u>TBD</u>
Long-Term Monitoring	<u>N/A</u>	<u>TBD</u>

COMPLIANCE PROGRAM

Summary: Compliance at MOTBY is being addressed by the BCT and the MOTBY Environmental Management Office. Projects currently underway or being considered include upgrading storage tanks and boilers, implementing a backflow and cross connection control program, instituting a new pollution prevention plan, and meeting the requirements of the facility's Title V Operating Permit. An Environmental Compliance Auditing Survey (ECAS) audit will be conducted between April 20 and May 2, 1997, with a draft report expected in Fall 1997. A final Pollution Prevention Plan document was completed on September 30, 1996.

The UST upgrade program at MOTBY includes the replacement or upgrade of USTs currently in use. At this point, most to all tanks have either been removed and replaced with state-of-the-art ASTs or upgraded with high level alarms and overflow protection.

The Title V Operating Permit material prepared by MOTBY was deemed administratively complete so the package was submitted to NJDEP on February 15, 1997 for the Technical Review Process, which should be completed by mid-May 1997.

MOTBY is retrofitting its boilers at its main boiler plant and modifying remote boilers for natural gas in order to comply with its Title V Operating permit. The permit is under review until May 1997. Baseline information for an Administrative Consent Order has been submitted as part of the process of bringing the boiler plant into compliance. This material will be added to the Title V permit in order to buy air credits for Boilers 3, 4, and 5. State-of-the-art controls are to be added to Boiler 5 in 1997 so that all boilers can achieve compliance by mid-1998.

Asbestos throughout the facility has been identified. An asbestos abatement program to remove all friable asbestos will soon begin. Funding for targeted asbestos removal in four buildings has been identified^f. Nonfriable asbestos will be tagged and transferred with the property.

Plans for a comprehensive lead-based paint survey are under development. Once the plans are finished, all buildings on the facility will be surveyed given the time period during which they were built^f.

PCB: Samples will be taken at former PCB transformer locations under basewide RI/FS contract in August 1997.

CONSERVATION PROGRAM

Summary: Natural, historical, and cultural resources are under evaluation by two contractors. A draft report on the cultural and historical resources is currently undergoing an internal review prior to being submitted to the New Jersey State Historical Preservation Officer for their review in June 1997. A final

report is anticipated in late 1997. At this time, no NEPA schedule has been developed because no reuse concept plan has as yet been made available for MOTBY. Thus far, the main resource consideration identified for evaluation consists of two on-site wetland areas. It is not yet clear whether a conservation management plan will be required for the site.

FAST-TRACK CLEANUP SUMMARY

Summary: The BCT communicates regularly and meets as required. Discussions include issues related to an expedited and smooth restoration process in order to make the property available for community reuse as soon as possible. To facilitate this process and the cleanup, a site-specific RI/FS will be conducted for the LRP as a separate OU from the rest of the facility. It will follow an accelerated timeline compared to a typical RI timeframe and sampling for the investigation will supplement the New Jersey Transit investigations from which data will be restated in the overall MOTBY RI/FS report. A work plan for this effort was submitted on January 30, 1997 and it is expected that the fast-track RI/FS and any associated remedial actions will be completed by the fall of 1997. However, the transfer of the property is/will be delayed until the MOTBY EIS is complete. The due date for the draft EIS (February 1997) has been missed because the LRA has not developed the draft community reuse plan. The scheduled due date for the final EIS (January 1998) is expected to be delayed by approximately three months.

BCT CONCURRENCE

The BCP Abstract has been reviewed and concurred to by the BCT:		YES	NO
DoD BEC:	<u>Mirza Baig</u>	<input type="checkbox"/>	<input type="checkbox"/>
	Name		
US EPA BCT Member:	<u>William Lawler</u>	<input type="checkbox"/>	<input type="checkbox"/>
	Name		
State BCT Member:	<u>Riché Outlaw</u>	<input type="checkbox"/>	<input type="checkbox"/>
	Name		

- ^a Acreage is based on the sum of the acreage from all study areas as presented in the EBS and derived from facility maps. The sum total reflects revised metes and bounds data generated for the facility.
- ^b The distribution is based on secondary CERFA categorizations as identified in the EBS. Secondary categories are CERFA categorizations assigned without regard to the facility-wide concerns which cause all property to have an official categorization of 7. Category 7 properties are considered unevaluated or require additional evaluation. Once these issues have been resolved, the secondary categories will become official.
- ^c The acreage provided represents the sum of the acreage of parcels, each of which may be affected by any number of items of a specific type of environmental condition. For example, the commander's quarters (parcel 234) is known to contain asbestos. As a result, this parcel of 2.03 acres was included in the total acreage. However, it is obvious that the building itself is not 2.03 acres in size. As a result, the exact acreage is less than what is calculable based on currently available information.

- d This total is based on the presence or absence of PCB transformers only. Reportedly all such pieces of equipment have been removed from MOTBY; however, the facility continues to collect light ballasts and other equipment which may contain PCBs.
- e As of February 1997, it has been estimated that the completion date will be delayed by three (3) months, because the draft community reuse plan has not been completed.
- f Lead-based paint and friable asbestos are considered for removal only if presenting an immediate hazard to people currently working on or using the base. No action will be taken to remove either from abandoned buildings. Instead, these become disclosure items for inclusion in any deed of transfer or sale.

Table ES-1		
BCT PROJECT TEAM ACTION ITEMS		
Action Item	To Be Completed	In Progress
ENVIRONMENTAL RESTORATION		
Identify sequencing strategy for environmental restoration projects	✓	✓
Identify management strategy for environmental restoration work		✓
Identify early actions for environmental restoration		✓
Identify strategy for POL concerns	✓	
Establish a technical review team to develop a comprehensive QA/QC program to be used in evaluating historic data and for the RI/FS		✓
Establish a database protocol for future environmental work	✓	
Oversee resolution of data gaps identified in EBS		✓
Oversee background concentrations issues	✓	
Determine need for ecological risk assessment		N/A
Determine need for groundwater or surface water monitoring	✓	
Establish a remedial design review protocol	✓	
Determine the usefulness of conceptual models	✓	
Determine cleanup levels appropriate to the facilities reuse alternatives	✓	
Identify all appropriate ARARs	✓	
Update the master schedules for implementation purposes		✓
Coordinate environmental restoration efforts with the conclusions or updates to the Community Relations Plan	✓	
Utilize cleanup instead of studies when appropriate		✓
Continue to encourage on-site decision-making	✓	
Solicit input from technical experts when appropriate		✓
ENVIRONMENTAL COMPLIANCE		
Determine status of unidentified permits and notifications		✓
Identify early actions to achieve compliance		✓
Establish a remedial action plan for the boiler plant USTs		✓
Pursue closure finalization of all removed USTs		✓
Hazardous waste materials reporting and disposal		✓
Continue to implement ACM abatement projects		✓

Table ES-1		
BCT PROJECT TEAM ACTION ITEMS		
Action Item	To Be Completed	In Progress
Confirm radon results	N/A	
Identify status and approach to management of oil/water separators in Stormwater Pollution Prevention Plan	✓	
Oversee completion and implementation of Pollution Prevention Plan	✓	
Perform lead-based paint survey	✓	
Monitor progress of Title V Permit Application, air emissions surveys, and compliance actions of boilers at the facility	✓	
Oversee development of Pesticide Management Plan	✓	
Develop overall compliance strategy for both operation and closure-related issues		✓
Coordinate structural engineering assessments for boiler plant USTs		✓
Ensure appropriate modifications to storage tanks and tank tightness testing	✓	
Maintain NJPDES permits		✓
Oversee planning for radiation closeout survey	✓	
Update the master schedules for implementation purposes	✓	
HISTORICAL, NATURAL, AND CULTURAL RESOURCES		
Oversee completion of Natural Resources Survey		✓
Oversee completion of Cultural/Historical Resources Survey		✓
Update the master schedules for implementation purposes	✓	
COMMUNITY RELATIONS		
Assist in the development of a Community Relations Plan	✓	
Continue to coordinate press releases		✓
Continue to coordinate and interact with the RAB		✓
Establish information repositories		✓
Hold periodic public meetings to keep the general community informed		✓
Strive to respond to public enquiries in a proactive manner		✓
DISPOSAL		
Oversee completion of the EIS		✓
Complete United States Army Disposal Plan	✓	
Finalize planned interim leasing actions		✓

Table ES-1		
BCT PROJECT TEAM ACTION ITEMS		
Action Item	To Be Completed	In Progress
Update the Environmental Condition of Property Map when appropriate	✓	
Provide updates to the EBS as appropriate through the use of ECOPs. Also consider the use of site-specific EBS documents to support transfer or lease actions	✓	

Key:

ACM = Asbestos-containing material.
 ARARs = Applicable or relevant and appropriate requirements.
 BCP = Base Closure Plan.
 BCT = BRAC Cleanup Team.
 EBS = Environmental Baseline Survey.
 ECOPs = Environmental Condition of Property documents.
 EIS = Environmental Impact Statement.
 NJPDES = New Jersey Pollution Discharge Elimination System.
 POL = Petroleum, oil, and lubricant.
 RI/FS = Remedial Investigation/Feasibility Study.
 QA/QC = Quality assurance/quality control.

On February 28, 1995, in compliance with the Defense Base Closure and Realignment Act of 1990, Public Law 101-510, as amended, the United States Secretary of Defense offered his recommendations of base closures and realignments for the 1995/1996 biennial to the Defense Base Closure and Realignment Commission. On September 28, 1995, the decision to close the Military Ocean Terminal, Bayonne (MOTBY), New Jersey, was ratified. As a result, MOTBY must be closed no later than July 13, 2001.

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) is a planning and strategy-based document that provides the basis for meeting or modifying facility cleanup and closure deadlines set by statutes, enforceable regulations, and/or facility-specific requirements.

This document is the result of the United States Department of Defense (DoD) BCP Bottom Up Review process initiated by MOTBY's BRAC Environmental Coordinator (BEC) and executed by the BRAC Cleanup Team (BCT). Because the planning process is evolutionary, so is this BCP and the review process by which it is prepared. Updates to the document are not only expected but necessary. Updates to the BCP are expected to reflect the most up-to-date guidance and regulations throughout the entire closure process.

Certain assumptions, interpretations and estimates have been used to complete this BCP. In many instances, necessary information is not yet known and will be included in subsequent versions of the document. There are six sections which provide the substantive material of the document and one section which provide the references used. For each section all tables and figures follow the textual body in numerical order.

Section 1 describes the objectives of the environmental restoration program, explains the purpose of the BCP, identifies the members and responsibilities of the BCT and Project Team, and provides a brief operational and physical history of MOTBY.

Section 2 summarizes the current status of MOTBY property disposal activities and describes the relationship between the closure and disposal activities with other environmental programs.

Section 3 describes the specific history and current status of environmental restoration and compliance programs at MOTBY. This section also details the current status of natural and cultural resources programs, the environmental condition of property, and community relations activities at the facility.

Collectively, Sections 1 through 3 summarize the status of all programs and activities which have an impact on or are impacted by environmental restoration at MOTBY. Much of the historic and current status information in these three sections has been taken from the draft final environmental baseline survey (EBS). Conversely, Sections 4 through 6 provide the strategy and schedule elements of the BCP. Most of this information is the work product of the BCT and Project Team.

Section 4 describes the facility-wide environmental restoration program and compliance program strategies for MOTBY. Included in this section are activity-specific strategies such as those considered for storage tanks, hazardous substances, polychlorinated biphenyls (PCBs), and asbestos.

Section 5 provides the schedules by which all environmental restoration, compliance, and historic, natural, and cultural resources conservation activities will be conducted.

Section 6 describes the approach by which technical and administrative issues, which if not considered could undermine the BCP process, will be addressed.

Section 7 provides the limited references used for the preparation of the document. The appendices to the plan provide additional information in support of the environmental restoration effort including fiscal year funding requirements, listings of existing environmental documents, decision document summaries, and a summary of the facility's approach to environmental justice issues.

1.1. Environmental Response Objectives

The objectives of the environmental response activities associated with the BRAC process for MOTBY are as follows:

- Protect human health and the environment;
- Conduct all environmental response activities in accordance with all applicable statutes, regulations, and guidance documents;
- Ensure that full benefit of the property can be attained by the community;
- Continue to identify and address potentially contaminated areas;

- Maintain clean property transfer as a top priority;
- Establish a logical order by which environmental restoration projects will be accomplished to maintain efficiency and cost-effectiveness;
- Consider future land use scenarios when deciding cleanup levels;
- Complete all remedial investigations according to priority levels and reuse scenarios;
- Develop risk assessment scenarios, consistent with all pertinent regulations, to facilitate further actions to be performed; and
- Establish interim and long-term actions to best resolve issues introduced by previous activities.

1.2 BCP Purpose, Updates, and Distribution

Specific objective areas of this BCP are to provide information regarding the status of environmental, compliance, historical, natural, and cultural resources programs at the facility, a summary of facility-wide property disposal and reuse planning efforts, the strategies for environmental cleanup of the facility, a schedule for all environmental activities, interim and area-specific initiatives to accelerate the environmental cleanup process, and any limitations or impediments to the response activities.

This document is the first version of a successive series of BCP documents to be completed throughout the MOTBY closure process. Copies of each successive version will be distributed to the BCT, Restoration Advisory Board (RAB), Army agencies and command authorities, other key participants, and contractors integral to the BCP process. The BCP also will be made available to the public at the MOTBY library, and the main branch of the Bayonne Public Library.

1.3 MOTBY BRAC Cleanup Team and Project Team

The MOTBY BCT consists of three people representing the Army, the New Jersey Department of Environmental Protection (NJDEP), and the United States Environmental Protection Agency (EPA). The BCT is the main administrative and decision-making body for the development of the BCP.

The MOTBY Project Team consists of many people representing MOTBY, NJDEP, various environmental contractors, and other Army agencies. The Project Team provides support to the BCT.

Table 1-1 provides a listing of the titles, names, and contact information of all current members of the BCT and Project Team.

1.4 Installation Description and History

1.4.1 General Property Description

MOTBY is located in the City of Bayonne, Hudson County, New Jersey, and is identified as Block 404, Lot 1 on the City of Bayonne Tax Map. The facility is on a man-made peninsula which is approximately 1/3 mile wide and extends approximately 2 miles into Upper New York Bay (see Figure 1-1). The reported acreage of the installation varies widely depending upon the source cited due to inexact measurement of the water portion of the installation; however, the amount of acreage cited on the tax map is 700 acres. According to the deed for the property, the Secretary of the Navy purchased the property through a series of eminent domain takings from 1941 through 1943.

Despite the various command changes and distinct phases of operations experienced at the installation, land use patterns have remained relatively constant over the past five decades. There are five separate areas with distinct land use patterns. Starting from the east they are:

- The Dry Dock Area;
- Warehouse, Administration, and Central Area;
- The Railroad Classification Yard;
- Landfill; and
- Housing and other Western Areas.

1.4.2 History of the Installation

The Building of the Peninsula (1937 - 1939)

The officials representing the City of Bayonne first considered a proposal to build a peninsula on an existing series of mud flats to its east in 1912; however, it was not possible to raise the necessary funding until 1937. Between 1937 and 1939, approximately 6,000,000 cubic yards (cy) of hydraulic fill were used to create 153 acres of new land on the old mud flats. The resulting Bayonne Port Terminal had 396 land acres and 321 water acres for a total of 717 acres. The surface of the terminal was formed by sand dredged from New York Bay. The original development was connected to the mainland by a narrow road and rail causeway.

Bayonne Port Terminal (1939 - 1941)

The terminal was used for cargo operations for ships arriving from Europe and South America. Typical cargo included cocoa beans, castor beans, wood pulp, paper, dry hides, general cargo, and, after June 1940, explosives for the war in Europe. Starting in October 1940, the terminal came under consideration by the United States Navy to be used as a naval facility with a dry dock for battleships and aircraft carriers to supplement the services provided by the Brooklyn Naval Yard. On March 10, 1941, immediate ownership and possession of the terminal was awarded by a federal court to the United States Government for use by the Navy as a dry dock and as a supply base.

Bayonne Naval Base (1941-1942)

The Department of the Navy immediately began construction of the major part of the present installation. During this period, some of the previous activities at the terminal were terminated. For example, all munitions loading was discontinued by August 1941, and all moored ships were obliged to find new berths.

One major aspect of the construction during this period was the construction of the dry dock for which 1,142,000 cy of fill were removed from the east end of the facility.

The Bayonne Naval Base was under the cognizance of the Commandant, Third Naval District. It included within its boundaries:

- The Naval Supply Depot (NSD) Bayonne, which shipped and received all types of goods on behalf of the U.S. Navy and was the host organization at the terminal;
- A Coast Guard Station, which was part of the New York Harbor network;
- The Naval Net Depot, which was used to maintain and issue submarine and cargo shipping nets;
- The Deperming Station, which was used to deperm vessels; and
- The Industrial Department Annex, which functioned as an industrial shipyard to supplement the Brooklyn Navy Yard.

The total property only included 396 acres of solid land at the time. Berth space was 3,500 linear feet on the north side and 2,600 linear feet on the south side.

United States Naval Supply Depot (1942 - 1959)

Almost immediately after the commissioning ceremony for the NSD Bayonne on June 30, 1942, supplies and material began to flow through the terminal. The principal functions of the NSD Bayonne included:

- Procurement, receipt, inspection, warehousing, and issuing of all types of ships material;
- Loading provisions and stores on ships;
- Receiving freight from other naval activities for transshipment, principally overseas, and loading into designated carriers; and
- Receiving, storing, and loading defense aid material.

In addition, the NSD increased its role in supplying fresh, edible food to U.S. bases around the world after construction of a cold storage facility was completed in May 1943.

Naval Supply Center Bayonne (1959 - 1966)

In 1960, warehouse automation systems were installed in the transit buildings and associated warehouses, and the Navy began to actively seek uses for the available space at the renamed Naval Supply Center (NSC).

During 1961, the NSC stored some of the material handled by the Military Industrial Supply Agency, the cold storage facility was used to provide food for United Nations (UN) troops in the Congo, and the NSC became a processing point in the Supply Overhaul Availability Program for ships in East Coast ports.

In 1962 and 1963 various medicines, vaccines, food and assorted supplies were shipped through NSC Bayonne under the privately sponsored missions of the "people to people" program, and by September 1963, the General Services Administration (GSA) was given the right to use warehouses and open storage space.

Also during this time, the role of the Naval Supply Research and Development Facility (NSRDF) at the installation since 1949, became more important. Its mission was to perform research and development (R&D) functions for the Navy and other such government agencies which may have required assistance in supply engineering, food science and engineering, clothing and textiles, and, after 1961, specification and standardization.

Military Ocean Terminal, Bayonne (1966 - present)

On July 1, 1965, the Military Ocean Terminal, Bayonne was established at the NSC under the command of the Military Traffic Management and Terminal Service (MTMTS). As a tenant of the NSC, using 11 buildings, MOTBY was organized to assume terminal operations performed by the Military Ocean Terminal, Brooklyn, New York, and similar operations for the Navy. In this way, MOTBY was to manage DoD manifested export/import cargo and to process DoD passengers arriving by water. In a three-phase move beginning in June 1964 and fully completed in September 1975, the MTMTS moved to the terminal from its former location at the Brooklyn Army Terminal, and assumed its new name, Military Traffic Management Command, Eastern Area (MTMCEA).

On July 1, 1967, the NSC was terminated and title to the land was transferred to the Army, and the facility was officially designated as MOTBY. When the Army took possession of MOTBY, some physical changes were made to the terminal including the upgrade and demolition of several facilities. The 21.3 miles of railroad tracks, previously installed at MOTBY, serviced buildings, outdoor storage, and the dry dock area while the classification yard was used to classify inbound and outbound cars by Central Railroad of New Jersey and Lehigh Valley Railroad.

In 1975, the stated mission of the MTMCEA was to plan, coordinate, and accomplish the movement of DoD and other government agency-sponsored ocean cargo through the terminal and other commercial facilities in the Port of New York. The Army provided installation support services and host functions to some 25 tenants. The base was equipped to receive hazardous cargo, if properly labelled, or shipped through in Conex or vans.

Records from the 1980s show typical cargo throughput at MOTBY to include howitzer tubes, refuse containers, metal containers, kitchen appliances, semitrailers, forklifts, vans, generator trailers, M-1 tanks, sedans, station wagons, medical stores, shelters, tow tractors, showcases, and sweepers.

In the early 1990s, the Desert Shield effort called upon MOTBY's resources to assist with the shipment of material for use in Desert Storm. Afterwards, material was returned to MOTBY for disposal. The shipment, storage, and receipt of household goods has been a continuing service provided by the installation. Some warehouses have been designated for the long-term storage of boxed household effects for U.S. military personnel and civilians serving abroad. The facility is also used as a shipping point for privately owned vehicles being shipped overseas, or being returned to the United States.

Management of the entire installation and all its buildings falls under the United States Army Garrison, Bayonne. The port facility, including the secured warehouse and

storage areas, is operated by the 1301st Port Command as a tenant. All transport-related loading activities in the port area are carried out by contracted-for stevedores.

The history of operations and environmentally significant activities at MOTBY is summarized in Table 1-2.

1.5 Environmental Setting

1.5.1 Topography and Drainage

MOTBY contains two distinct but unequal portions: an artificial peninsula of approximately 390 acres, created by filling in part of New York Harbor, and a natural landward portion of approximately 39 acres. The peninsula extends about 2 miles into the harbor, with a width of approximately 1/3 mile. The 39-acre portion forms a strip varying from approximately 150 to 200 feet in width at the south end to over 700 feet in width at Stanley Boulevard and gradually reducing to approximately 500 feet in width at the north end of the facility. The landward area slopes down from over 20 feet above mean sea level (AMSL) at the west to just over 10 feet AMSL at the foot of the slope. There, it joins a wetland on the area of hydraulic fill at the north side of the facility, and the railroad yard area on the south side. The majority of the peninsula varies only between 10 feet AMSL and 15 feet AMSL and is generally level with very slight slopes. Some 20 acres at the western end of the filled portion has been used as a landfill and has an irregularly mounded surface a little higher than 15 feet AMSL in places.

Two areas of ponded surface water were noted within the wetland area during a previous environmental investigation. One is at the outlet of a storm drain discharging from the area of the water reservoir. The other is in a closed depression close to the northwest edge of the landfill.

The dredged channels adjacent to MOTBY are generally 35 to 37 feet deep, and extend from the Turning Basin in the North Channel (approximately 950 feet in diameter) for approximately 6,700 feet east to the end of the facility along the north side, where berths N-1 to N-5 are located. The dredged area continues between Buoy 14 and Buoy 7 (approximately 2,100 feet apart) across the east end of the facility where berths E-1, E-2, and the dry dock are located (approximately 1,150 feet from bullhead to bulkhead), and along the south side for 4,400 feet through berths S-1 through S-4. A smaller turning basin, approximately 800 feet in diameter extends between berths S-3 and S-4.

Facility surface runoff is drained by storm drains that discharge directly to the bay. There are 11 outfalls to the north, 10 outfalls to the south, and two outfalls to the east.

1.5.2 Geology and Soils

The bedrock under the east end of MOTBY was reached in a number of deep boreholes drilled in 1942. They suggest that the outer end of MOTBY rests on what may be Precambrian Manhattan Schist, which also lies north of MOTBY along the New Jersey shoreline under parts of Jersey City. The parts of MOTBY closer to the shore lie along the strike of the outcrop of the Triassic Stockton formation, which is predominantly a light-colored arkosic sandstone with some thin beds of red sandstone and shale. At the west end of the facility, one borehole appeared to encounter weathered Stockton formation at approximately 15 feet from surface.

Generally, the unconsolidated sediments above the bedrock consist of three layers: the glacial outwash sands and gravels; recent estuarine silts, clays and sands; and hydraulic fill. The middle layer (referred to as "river mud" in many of the 1942 borings, but also as "silt" or "silt and clay") was encountered in the 1942 boreholes at as little as 7.5 feet below the surface to as much as 24 feet below the surface. Some of the sands above this layer may be natural, but most are probably hydraulic fill dredged from the bay. The base of the silt, silty clay, or "river mud" layer is as high as 25 feet 10 inches below surface, or as deep as 38 feet, but has occurred within every borehole drilled at MOTBY. The thickness may be as little as 4 feet to more than 20 feet; but it provides a distinct layer, continuous between the hydraulic fill above and the naturally occurring sands and gravels below, except at the extreme west end of the facility. The data are entirely consistent with hydraulic fill being placed above a layer of seaward sloping mud flats or possibly marsh deposits east of the former shoreline and over shallow estuarine deposits.

There are no clear soil descriptions for the facility. Previously, soil conditions at the west end of the facility have been described as stratified drift, wash from glacial till, recent alluvium tidal march, and filled land. Furthermore, urban development has apparently obscured the complex range of conditions to prohibit detailed description. Because the rest of the facility is hydraulic fill, a soil profile has not yet developed.

1.5.3 Climate and Hydrology

Two climate stations are close to MOTBY: Newark International Airport, approximately 4 miles west, and Jersey City, approximately 4 miles north. The data for Jersey City show a more maritime climate than the airport which makes it more representative of the facility. The Jersey City data indicate a mean total precipitation of 43.77 inches rainfall equivalent, 28.9 inches of snow, and a mean annual number of 68 days with precipitation greater than 0.1 inches. Temperatures are moderate, with a monthly mean of 52.1°F, mean

daily minimum and maximum of 45.7°F and 58.8°F, respectively, and temperature extremes of 102°F (July 1966) and 3°F (February 1979). Monthly mean temperatures range from 30.6°F in January to 74.6°F in July.

Hydrology at MOTBY is relatively simple. The Bayonne peninsula is a recharge area which discharges east and west into upper New York Bay and Newark Bay, respectively. Although this might affect the landward end of MOTBY, where the water table occurs in the sands and gravels lying above apparent Stockton formation bedrock, there are no known sources of contamination in this area, and flow is clearly entering the facility from off site at this location.

The remaining area of the site is covered with fill, primarily hydraulic fill (sand and silt) from the floor of Upper New York Bay. This rests on lower permeability "river mud," consisting of silt and silty clay, which forms a continuous layer, ranging from 4 feet to more than 20 feet thick, with its base below sea level. An unconfined aquifer is created by infiltration from rainfall and snowmelt causing a zone of saturation within the hydraulic fill above the silt and clay. Over much of the facility, the high percentage of man-made structures and pavement result in high rates of runoff and rapid discharge to surface water via the storm drains.

Because of the distribution of land cover types, most of the recharge, and therefore most of the groundwater discharge to surface water, will occur within the west end of the site. As an approximate estimate, 32 million gallons of groundwater will discharge each year to the North Channel west of 18th Street (over 3,800 linear feet of shoreline), 26 million gallons will discharge to South Channel west of 18th Street (over 5,500 linear feet), and the remaining 31 million gallons per year will discharge across the entire eastern perimeter of the site (over approximately 7,100 linear feet). Surface runoff amounts to approximately 910,000 gallons per day and will mostly discharge through the storm drain outfalls.

The silts and silty clays beneath the unconfined aquifer are of low hydraulic conductivity. Well pairs show vertical hydraulic gradients which range from negligible to 0.27 feet per foot evidently depending upon the state of the tide at the time of measurement. This is because the sands and gravels below the silt and silty clay are confined and fully saturated, being below sea level. They are also directly in contact with the water in both the North and South channels, because the dredging depth is below the base of the clay layer, and so reflect the state of the tide. The contribution of flow to the confined aquifer both from the unconfined aquifer through the confining layer, and from the landward side, is reflected in the lower salinity of the water from the deeper wells than is found in the harbor.

1.6 Hazardous Materials and Waste Management Practices

1.6.1 Hazardous Materials Storage

Currently, a variety of hazardous materials are stored at MOTBY in varying quantities as a result of shipping operations or to support operations and activities at the terminal. Figure 1-2 identifies the location of past hazardous substances activities.

Support operations and activities for which hazardous materials are stored at MOTBY include vehicle and equipment maintenance, photographic and X-ray processing, steam generation, pest management, printing, painting, recreation, and general maintenance. Each material is generally stored at the location where it is used.

1.6.2 Hazardous Waste Storage

One characteristic identified during the EBS is common to most current and former hazardous waste storage areas at MOTBY: most areas where hazardous materials have been used have been located. Of these areas, the most significant hazardous waste storage areas were in EBS parcels 203, 204, and 205. These areas were used through the late 1980s by the Defense Reutilization and Management Office (DRMO), the principal agency through which the disposal of hazardous waste generated at MOTBY and military facilities worldwide was managed. In 1981 MOTBY submitted a Resource Conservation and Recovery Act (RCRA) Part A Permit application for its DRMO storage facility. MOTBY did not submit a RCRA Part B Permit application because it did not qualify as a large quantity generator. The facility was assigned EPA RCRA Part A Permit Identification No. NJ0210022752.

Tables 1-3 and 1-4 provide listings of all hazardous waste generating activities, present and former, respectively.

1.6.3 On-Site Hazardous Waste and Petroleum Disposal

Several former hazardous and petroleum waste disposal areas were identified at MOTBY during the EBS. These areas include the following: the boiler plant, where PCB-contaminated oil may have been burned; the battery acid pit inside Building 45; former fire training areas in Study Areas 85 and 100N; the former Navy storage area in Study Area 222, where the burning of wastes is documented; the former landfill; and the sanitary sewer where photographic and X-ray processing wastes were discharged in the past.

1.6.4 Petroleum Storage, Fueling Systems and Pipelines

During the research for the EBS, 140 distinct items associated with the storage of petroleum-related products were identified. These items include underground storage tanks (USTs), aboveground storage tanks (ASTs), tank trucks, tank cars, drum storage areas, and general storage areas of gasoline, diesel fuel, #2 fuel oil, #6 fuel oil, waste oil, hydraulic fluid, new oil, kerosene, or propane. Sixty-eight of these 140 items are still located at MOTBY.

1.6.4.1 Underground Storage Tanks

Currently, 23 USTs are registered with NJDEP under UST Registration Certificate No. 0119928; however, only references to 16 USTs were found during the facility file review. None of the required individual tank registration certificates for these tanks were located. Twelve of these 16 tanks are still in use and provide storage for emergency generators, heaters and boilers, or are part of oil/water separators. Three of the four tanks that are not in use are the large #6 fuel oil storage tanks associated with the boiler plant, Building 44C. These three tanks have been the source of many petroleum releases in the past and were taken out of service in 1991. As of this BCP, final closure procedures for these tanks are still under consideration.

The records review also uncovered 32 USTs formerly located at MOTBY that have either been replaced or removed without replacement. These tanks had a capacity range of 250 to 15,000 gallons and were located at many locations around the facility.

1.6.4.2 Aboveground Storage Tanks

Forty-two ASTs are currently located at MOTBY, ranging in capacity from 25 to 250,000 gallons. Two of these are new and not yet in use, two are idle, and a further eight were not included in the original Table 3-9 presented with the draft Version 1 BCP. Forty-one of these tanks are in use and either supply fuel to emergency generators, heaters, and boilers, or provide storage for waste oil associated with maintenance operations. Seventeen former ASTs were identified as having been removed from their locations. These tanks ranged from 100 to 5,000 gallons in capacity.

1.6.4.3 Other Petroleum-Related Storage

Twelve items which are not stationary tanks but associated with petroleum-related storage at MOTBY were also identified during the file review. These items include tank

trucks, drum storage areas, and other petroleum storage areas. Formerly, there were 21 additional items, associated with petroleum-related storage, located at MOTBY. These items are no longer present.

1.6.4.4 Propane Storage

Propane is also used at MOTBY to provide fuel to propane heaters and laundry dryers and these active tanks are on the facility. Two former tanks were located at MOTBY. Of these, the most significant was a 30,000-gallon tank associated with the "vaporizer house," formerly Building 120.

1.6.4.5 Fueling Points and Pipelines

There have been as many as three fueling points at MOTBY in the past, but only one remains in use today. The gas station is operated as part of the Post Exchange (PX) by the Army and Air Force Exchange Service (AAFES) and is located at Area 91; it consists of three USTs and three pumps for regular-, mid-, and high-grade gasoline. The former fueling points were located at areas 44E and 106. Area 44E served as the refueling point for privately owned vehicles (POVs) as well as government vehicles received from shipment. The former pumps and tanks located at Area 106 were associated with a maintenance garage at that location. The fueling tanks formerly located at Areas 44E and 106 have been removed.

In the past, two pipelines have been used at MOTBY to receive fuel oil from barges for the boiler plant. Only one of these two lines is still in service. A 6-inch, schedule 80 steel pipe runs through a concrete tunnel 2 feet by 3 feet from Berth N-6 down the length of Jersey Avenue to a junction north of the underground tanks at 44C. The line then turns south and proceeds to the boiler plant area where it again turns west toward the ASTs at Area 44F. The 6-inch line was installed after the original 8-inch line ruptured in March 1991. Fuel transfer operations resumed in January 1994. The concrete tunnel serves as secondary containment. The second pipeline proceeds south from Berth N-8, underneath 15th Street, to the northwest corner of Building 44D. From here, it is directed east to meet the junction where the first pipeline turns south. No details on the removal of this line were found during the EBS facility file review.

1.7 Off-Post Property/Tenant Units

1.7.1 Off-Post Property

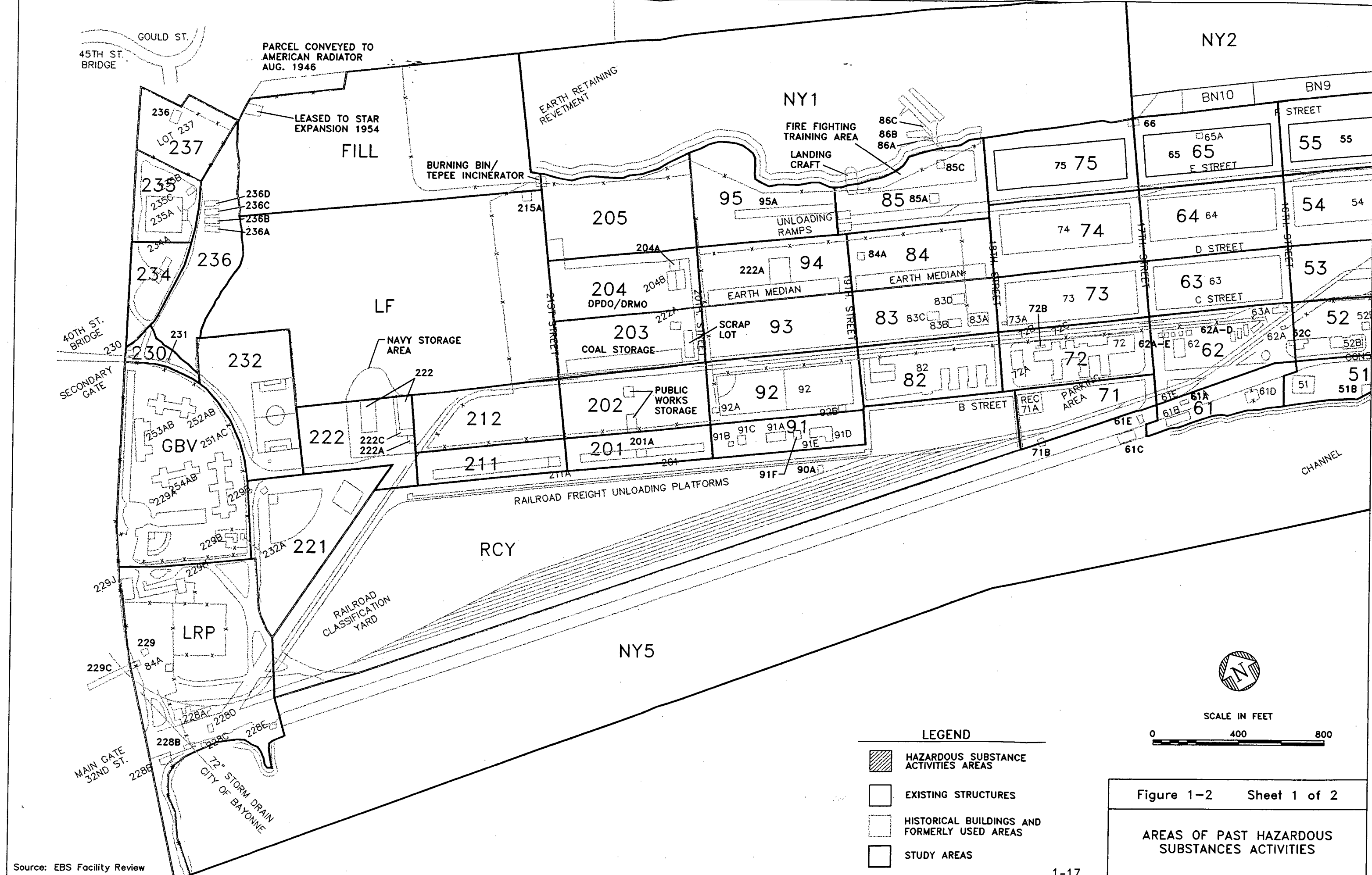
The Army does not own any property associated with operations at MOTBY outside the property line.

1.7.2 Tenant Units

In 1975, the stated mission of the MOTBY was to plan, coordinate, and accomplish the movement of DoD and other government agency-sponsored ocean cargo through the terminal and other commercial facilities in the Port of New York. The Army provided installation support services and host functions to some 25 tenants including: United States Army Communication Command - MTMTS Communication, Electronics Activity, Eastern Area; United States Army Logistics Control Office, Atlantic Movement Branch; United States Air Force Water Port Liaison Office; MTMTS - Eastern Management Information System Office; GSA distribution facility; Fleet Material Supply Office; Navy International Logistics Control Office; Defense Supply Agency; and the Defense Subsistence Regional Defense Storage Facility and Supply Office.

Management of the entire installation and all its buildings falls under the United States Army Garrison Bayonne. The port facility, including the secured warehouse and storage areas, is operated by the 1301st Port Command as a tenant. Table 1-5 provides a complete listing of current tenants and contractors located at MOTBY.





LEGEND

- HAZARDOUS SUBSTANCE ACTIVITIES AREAS
- EXISTING STRUCTURES
- HISTORICAL BUILDINGS AND FORMERLY USED AREAS
- STUDY AREAS

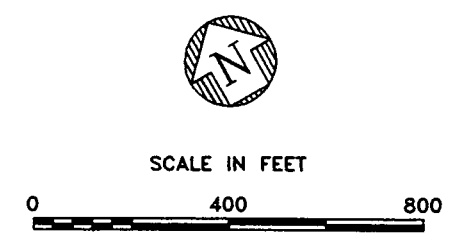
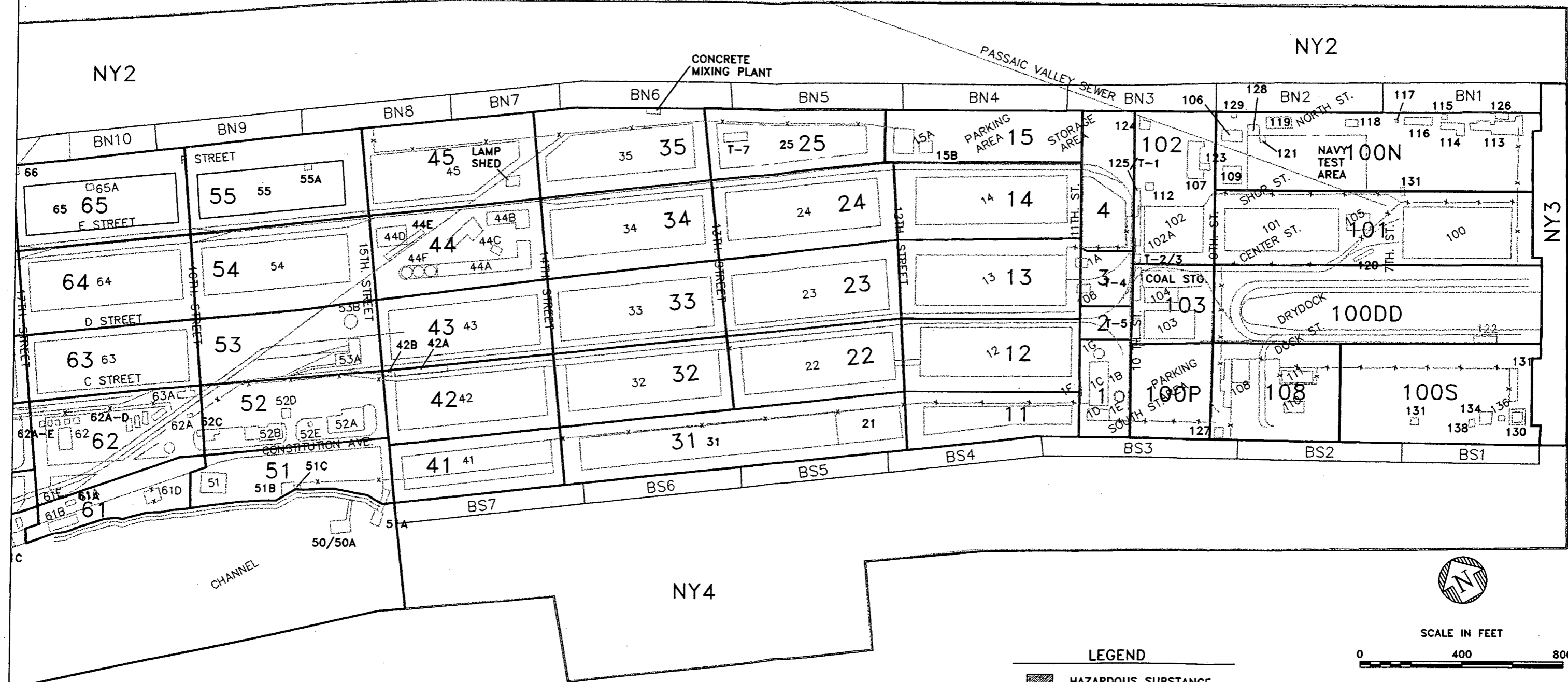


Figure 1-2 Sheet 1 of 2

AREAS OF PAST HAZARDOUS SUBSTANCES ACTIVITIES



- LEGEND**
- HAZARDOUS SUBSTANCE ACTIVITIES AREAS
 - EXISTING STRUCTURES
 - HISTORICAL BUILDINGS AND FORMERLY USED AREAS
 - STUDY AREAS

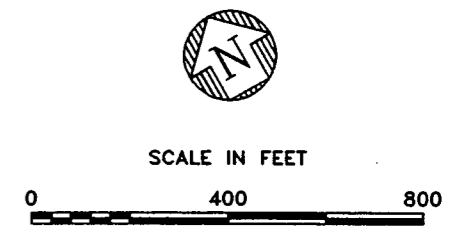


Figure 1-2 Sheet 2 of 2

AREAS OF PAST HAZARDOUS SUBSTANCES ACTIVITIES

Table 1-1

BCT AND PROJECT TEAM MEMBERS

Title/Role	Name	Phone/Fax	E-mail Address	Address
MOTBY BRAC Cleanup Team				
BRAC Environmental Coordinator	Mirza Baig	201-823-6535 Fax: 201-823-5145	baigm@bayonne-emh3.army.mil	Military Ocean Terminal, Bayonne Military Traffic Management Command Attn: MTEPE-BRACO HQ, Eastern Area Building 82/1, Room 185 Bayonne, NJ 07002-5302
NJDEP Case Manager	Riché Outlaw	609-633-0747 Fax: 609-633-1454	routlaw@dep.state.nj.us	New Jersey Department of Environmental Protection Attn: RPSR/BFCM 401 East State St. CN028 Trenton, NJ 08625
EPA Project Manager	William Lawler	212-637-3728 Fax: 212-637-3771	lawler.william@epamail.epa.gov	U.S. Environmental Protection Agency Region II Strategic Planning and Multimedia Programs Branch 290 Broadway, 25th Floor New York, NY 10007-1866
MOTBY BRAC Project Team				
Base Transition Coordinator	Scot Laferté	201-823-6060 Fax: 201-823-6641	lafertes@bayonne-emh3.army.mil	Military Ocean Terminal Bayonne Attn: MTEGB-BTO Bayonne, NJ 07002-5302
Military Traffic Management Command Project Engineer	Rich Mandra	201-823-6391 Fax: 201-823-5152	mandrar@bayonne-emh3.army.mil	HQMTMC Military Ocean Terminal Bayonne Attn: MTPAL-FE Building 82, Room 247 Bayonne, NJ 07002-5302

Table 1-1

BCT AND PROJECT TEAM MEMBERS

Title/Role	Name	Phone/Fax	E-mail Address	Address
Environmental Engineer	Leonard Wagner	201-823-7010 Fax: 201-823-7040	wagnerl@bayonne-emh3.army.mil	Military Ocean Terminal Bayonne Attn: MTEGB-PWE Building 101-2 Bayonne, NJ 07002-5599
Environmental Branch Chief, MOTBY	Carl Appelquist	201-823-5505 Fax: 201-823-7040	applequ@bayonne-emh3.army.mil	Military Ocean Terminal Bayonne Attn: MTEGB-PWE Building 101-2 Bayonne, NJ 07002-5599
MOTBY Realty Specialist	Pat Gannon	201-823-7025 Fax:		
MOTBY Public Affairs Office	June Pagan	201-823-6351 Fax:		
NJDEP Technical Coordinator	Steve Byrnes	609-984-3068 Fax: 609-292-8048	sbyrnes@dep.state.nj.us	New Jersey Department of Environmental Protection, DPFSR/BEERA 401 East State St., CN413 Trenton, NJ 08625
NJDEP Geologist	Gary Czock	609-292-8427 Fax:	gczock@dep.state.nj.us	New Jersey Department of Environmental Protection, DPFSR/BGWPA 401 East State St., CN413 Trenton, NJ 08625
USACE - New York District	Neil Ravensbergen	212-264-2411 Fax: 212-264-1198		U.S. Army Corps of Engineers New York District 26 Federal Plaza, Room 2109 New York, NY 10278-0090
USACE - New York District, Realty Specialist	Maria Anglada	212-264-9109 Fax: 212-264-0230		U.S. Army Corps of Engineers N.Y. District, Real Estate Division 26 Federal Plaza, Room 2007 New York, NY 10278-0090

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Table 1-1

BCT AND PROJECT TEAM MEMBERS

Title/Role	Name	Phone/Fax	E-mail Address	Address
USACE - Baltimore District, RI/FS Contract Manager	Shelley Spayde	410-962-6805 Fax: 410-962-6732	shelley.a.spayde@usace.army.mil	U.S. Army Corps of Engineers Baltimore District (CENAB-EN-HM) 10 South Howard Street Room 10000 Baltimore, MD 21201
USACE - Baltimore District, RI/FS Technical Manager	Margaret B. Martin	410-962-3500 Fax: 410-962-2318	margaret.b.martin@usace.army.mil	U.S. Army Corps of Engineers Baltimore District (CENAB-EH-HT) 10 South Howard Street Room 10000 Baltimore, MD 21201
USAEC Contracting Officer Representative	Clayton Kim	410-671-1609 Fax: 410-671-1635		United States Army Environmental Center Bldg E4480 Aberdeen Proving Ground, MD 21010
E & E EBS/BCP Project Manager	Nermin Ahmad	703-522-6065 Fax: 703-558-7950	csc@ene.com "Attn: N. Ahmad" in subject line	Ecology and Environment, Inc. 1700 N. Moore St., Suite 1610 Arlington, VA 22209
E & E BCP Task Manager	Dennis Englerth	703-522-6065 Fax: 703-558-7950	dle11@ene.com	Ecology and Environment, Inc. 1700 N. Moore St., Suite 1610 Arlington, VA 22209
E & E RI/FS Project Manager	Joe Pearson	610-832-1370 Fax: 610-832-2110	csc@ene.com "Attn: J. Pearson" in subject line	Ecology and Environment, Inc. 1100 E. Hector St., Suite 210 Conshohocken, PA 19428
E & E EBS Task Manager	Rich Walter	415-981-2811 Fax: 415-981-0801	csc@ene.com "Attn: R. Walter" in subject Line	Ecology and Environment, Inc. 350 Sansome Street, #300 San Francisco, CA 94104
EIS Contractor Project Manager	George Townsend	703-385-6000 Fax: 703-385-6007		Tetra Tech, Inc. 10306 Eaton Pl., Suite 340 Fairfax, VA 22030

Table 1-2			
HISTORY OF INSTALLATION OPERATIONS			
Period	Type of Operation	Environmentally Significant Activities	Study Areas
1937 - 1939	Initial filling of peninsula	Use of Hydraulic Fill from N.Y. Harbor	Facility-Wide
1939 - 1941	Bayonne Port Terminal	Explosives handling	31, 41
1941 - 1942	Navy Base Construction	Use of hydraulic fill from N.Y. Harbor	Facility-Wide
1942 - 1946	Naval Supply Depot Deperming Station Brooklyn Navy Yard Annex	Ship Berthing	NY2, NY3, NY4
1946 - 1966	Naval Supply Depot/Center Naval Supply Corps School Naval Salvage School Atlantic Reserve Fleet Military Sea Transportation Service Naval Supply Research and Development Facility	Drydock operations (ship maintenance and repair)	100DD, 100N, 100P, 100S, 101, 102, 103, 108
1966 - 1996	Military Ocean Terminal Military Traffic Management Command (Eastern Area) Military Sealift Command Defense Supply Agency GSA Distribution Facility AAFES Federal Records Center	Railroad Classification and Unloading	RCY
		Railroad Locomotive Maintenance	53
		Heating Plant and Fuel Oil Lines	35, 44 45
		Fueling Operations	44, 83, 91, 100N
		Vehicle Maintenance Operations	44, 45, 72, 100N
		Wash/Grease Racks, Oil/Water Separators	44, 45, 72, 91, 100N, 101
		Solvent Dip/Preservation Tanks	4, 32, 42
		Printing and Photo Shops	22, 42, 52, LRP
		Pesticide Mixing and Storage	4, 11, 31, 12, 101, 103
		Medical Clinics	42, 52, 102
		Substations	61, 105, 108

Table 1-2			
HISTORY OF INSTALLATION OPERATIONS			
Period	Type of Operation	Environmentally Significant Activities	Study Areas
		Fire Fighting Training	85, 100N, 100S
		Pistol/Rifle Range	72
		Small arms ammunition storage	73
		Hazardous Material Storage	23, 63, 73, 203, 204, 205 and other areas
		Hazardous Waste Storage	14, 101, 108, 203, 204, 205, 222 and others
		Radioactive Material Storage	23, 73
		Underground Storage Tanks	Numerous
		Water Treatment	1, 235
		Sewage Treatment	1, 3
		Sanitary Landfill	LF
		Septic Systems	230, 234, 235, 236
		Property Disposal (DPDO/DRMO)	63, 93, 203, 204, 205
		Burning Activities	100N, 205, 222

Table 1-3

CURRENT HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
1	1D	Sludge Drying Beds/ Phragmite Reed Beds	Sludge generated at the STP is presently discharged to phragmites feed beds approximately every 6 weeks. Prior to installation of the phragmites in the 1980s, these beds functioned as drying beds only.	Sanitary sludge	Unknown - beds cover 2,240 square feet	Prior to installation of the phragmites, the dried sludge would be disposed off site. Current bed is managed under NJPDES Permit. Date of last disposal is unknown.
22	22	Microfiche Room, Federal Records Center	The microfilm lab at the Federal Archives Center has been operating since the late 1970s.	Photoprocessing wastes, solvents, silver	Unknown, but limited. During the January 1996 EBS survey, a 5-gallon container held silver waste.	Prior to 1984, the lab discharged photoprocessing wastes to the sanitary sewer. A silver recovery unit was then installed for sanitary pretreatment. Silver is periodically removed and disposed by the base EMO.
42	42-2	Defense Printing Plant	The 2nd Floor Printing Plant has been used from 1993 to the present.	ITEK (a D011 silver waste), polychrome, blanket wash, and a mixture of isopropyl alcohol, ethylene glycol, propylene glycol and water.	Quantities are unknown although it was noted that the ITEK, polychrome, and blanket wash were in general not being generated in quantities sufficient to be shipped off site.	Generated quantities of 3 of 4 waste streams is limited. The fourth stream is being accumulated, then disposed off site via the EMO.
42	42-4	Navy Dispensary	The Navy dispensary has operated in Room 4-187 from an unknown date to present.	Currently generates silver from x-ray waste silver recovery unit and medical waste, formerly generated spent developer solution	Generation rate limited. 400 gallons of waste developer solution were noted in 1986. During the January 1996 EBS survey 5-gallon containers with silver noted.	Historically, X-ray film processing wastes were discharged to the sanitary sewer terminal-wide prior to mid-1980s. X-Ray film processing wastes are presently processed through a SRU prior to discharge to the sanitary sewer. Silver waste is retained in a 5-gallon container and is disposed on demand through the EMO.

Table 1-3
CURRENT HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
42	42-4	Navy Photo Lab	The 4th Floor Navy Photographic Laboratory (Rooms 4-140/141/142) has operated from at least 1991 to present.	Currently generates silver from silver recovery unit, formerly generated spent developer solution	Generation rates were probably slow. During the January 1996 EBS survey 1 5-gallon container silver from SRU noted.	Historically, film processing wastes were discharged to the sanitary sewer terminal-wide prior to mid-1980s. Film processing wastes are presently processed through a SRU prior to discharge to the sanitary sewer. Silver waste is retained in a 5-gallon container and is disposed on demand through the EMO.
44	44C	Boiler Plant	The boiler plant has operated since 1942. Boiler blowdown, possibly containing spent residuals of cleaning agents, has probably been generated over the lifetime of the plant.	Corrosive cleaner	Unknown generation rates. Unknown if blowdown actually contains hazardous substances.	Unknown disposal practices regarding blowdown. Two 2,000 gal. ASTs are located on the south side of Building 44C and may be used to collect boiler blowdown, but this use has not been confirmed.
44	44C	Boiler Plant Fuel Oil Line Drainage Trench	Rainwater periodically accumulates in the oil transfer pipeline trench and requires pumping. The trench apparently contains residual oil, as evidenced by a 1991 fuel oil release from the pit.	Oil-contaminated water	Unknown	Periodic pumping is reported, but disposition of oil-contaminated water is unknown
44	44D	Vehicle Maintenance Shop	Used as a repair shop and/or garage since the 1940s for minor repairs, fluid changes, steam cleaning, washing, battery charging and possibly degassing of vehicles.	Oily rags (F001), degreaser, spent solvents, antifreeze, waste batteries, waste oil	Unknown generations rates.	Waste oils, degreasers, and antifreeze have been accumulated in drums, degreasing units, and USTs. Previous disposal unknown, but possibly via the DRMO. Present disposal via the EMO. A 500 gal. waste oil AST, located on the east side of 44D is presently used to support vehicle maintenance activities.
44	44F	Boiler Plant ASTs and Oil/Water Separator	Stormwater runoff from the Boiler Plant ASTs is collected within a secondary containment area and passed through an oil/water separator.	Fuel Oil	Unknown	Intercepted oil is accumulated in a 3,200 gal. waste oil tank connected to the oil/water separator located within the secondary containment structure of 44F. Frequency of removal and disposal of oil is unknown.

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Table 1-3
CURRENT HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
45	45	Vehicle Maintenance Shop	Vehicle maintenance activities since 1964 have included steam cleaning, fluid changes, battery changing and charging, testing and tuning of vehicles; body repair, welding, spray painting, and painting.	Currently generates spent antifreeze and POLs.. Previously also generated cleaning solvents and battery acid.	Unknown generation rates. During the January 1996 EBS survey, spent antifreeze in a 55-gallon drum and 10 waste batteries were observed.	Fluids have been accumulated in drums, degreasing units, and an UST. Previous disposal unknown, but possibly via DRMO. Present disposal via the EMO. Waste battery acids were previously disposed to a pit on the north side of 45. Waste oil presently accumulated in a 550 gal. UST connected to an oil/water separator in the maintenance area and emptied every six months.
52	52B	Army Health Clinic	The Army Health Clinic has operated at Building 52B since 1942. The X-ray lab, currently located in Room 20B, is expected to have operated during the majority of this time period.	Photochemical wastes (developer, fixer, silver)	Unknown. In an 1986 inventory of hazardous waste generation area, 400 gallons of photochemical wastes were noted at this location. No hazardous waste were noted during the 1996 EBS survey.	Prior to the mid-1980s, X-ray wastes were discharged to the sanitary sewer. X-ray processing wastes (developers and fixers) are currently accumulated and stored in Room 20B prior to disposal via EMO.
53	53A	Railroad Maintenance Shop	Building 53A has been used as a railroad equipment maintenance shed since 1972 for engine tuning, heavy equipment maintenance,, fluid changes, minor repairs, washing and steam cleaning.	Antifreeze, solvents, POLs including waste oil, battery acid	Unknown. In 1987, 8 55-gallon drums of antifreeze were noted as stored in this area. No information on generation rates was found.	Waste oils, degreasers, and antifreeze were accumulated in drums and stored inside and outside 53A prior to disposal. Previous disposal possibly by DRMO. Present disposal by EMO.
72	72A	Auto Craft Shop	The Auto Craft shop has operated at Building 72A since approximately 1972 and has been used for auto repair, tune-ups, vehicle/engine washing, and preventive maintenance.	Currently generates waste antifreeze. Previously generated degreasers, antifreeze, cleaning agents, waste oil, and waste batteries.	Unknown. In 1989, about 6 drums of waste oil were generated. During the January 1996 EBS survey one 55-gallon drum containing waste antifreeze was noted.	Fluids have apparently been accumulated in drums and stored inside and outside 72A prior to disposal. Previous disposal unknown, but possibly through DRMO. Present disposal via the EMO. The vehicle wash rack is connected to an oil/water separator south of 72A, but the destination of treated water or removal of accumulated oil has not been identified.

Table 1-3
CURRENT HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
72	72A	Pistol/Rifle Range	Building 72A has housed an indoor firing range since 1948. The pistol range is presently used for DOD Police training.	Lead	Unknown. Lead dust has accumulated within range to sufficient levels that USAEHA identified potential health concerns in 1991.	Spent lead apparently has not been removed and lead dust levels may have health concerns.
83	83A	POV Operations	Prior to and after shipment, vehicles were degassed and regassed, and possibly deoiled and reoiled.	Gasoline, diesel, waste oil	Unknown	Unknown if waste generated, and if so, disposal practices.
91	91D	Gasoline Filling Station	Water-contaminated fuel has been periodically generated due to cleanup of small spills during gasoline fueling.	Water-contaminated fuel	Unknown but probably minimal.	Drums were formally used to accumulate water-contaminated fuel. Disposition of drums unknown. Current method of collecting and containing water-contaminated fuel has not been identified.
101	101	Pesticide Shop	Mixing and storage of pesticides has occurred at Building 101 from at least the 1970s to the present.	Waste and off-spec. pesticides	Unknown generation rates in past. Generation rates very limited since early 1990s when pesticide application contracted out.	Disposal practices are unknown. However, DRMO reportedly received waste pesticides for disposal from various facility locations in the late 1970s and through the 1980s. Some empty pesticide containers, were disposed in the facility landfill.
101	101	Paint Shop	A paint shop and former paint spray booth are located in the north-central portion of Building 101. Paint spray booth is no longer in operation, though the paint/sign shop continues to operate.	Waste paint and solvents.	In 1984, 40 gallons of waste solvent paint thinner was produced annually at this location. Unknown generation rates for waste paint.	Waste paint has been accumulated in paint cans within 101. Disposal of waste solvent is unknown. Previous disposal possibly through DRMO. Present disposal via the EMO.
101	101	Wash Rack	A wash rack has been used for vehicle washing and is connected to an oil/water separator on the south side of Building 101.	Motor oil and other vehicle fluids	Unknown	Oil was intercepted by the oil/water separator, but the destination of treated water discharge from the OWS has not yet been identified, and removal and disposal of oil has not been confirmed.

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Table 1-3

CURRENT HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
108	108	Possible Equipment Maintenance at Building 108	Equipment maintenance and or parts cleaning has apparently been conducted at Building 108 at a low level over time resulting in the generation of small amounts of solvent waste.	Waste dielectric fluid, perchlorethylene	Unknown source of solvents at building, so generation rates undeterminable.	Waste dielectric fluid and solvent were accumulated in drums at Building 108 and then presumably disposed via the EMO and previously the DRMO.
LRP	228A	Woodcraft Shop	The Woodcraft Shop has operated from 1972 to present.	Liquid solvents, dried glues, waste paints, solvents	Small quantities generated. During the 1996 EBS survey, small quantities of liquid solvent, dried glues, paint cans, and other containers were stored at this location.	Wastes accumulated on site prior to disposal via the EMO and previously DRMO.
LRP	228A	Arts and Craft Shop	The Arts and Crafts Shop has operated from 1972 to present. The photo lab has operated at the shop since at least 1991.	Color photo processing chemicals, Solvents, paints, cleaning agents, inks, old ceramic glazes	No information on quantities generated was located, although amounts are probably limited.	Photo processing wastes may have been discharged to the sanitary sewer prior to the mid-1980s, when the facility ceased these discharges. Wastes are presently accumulated on site prior to disposal via the EMO.
None	Various	Former PCB Transformers, Equipment, and Substations	As of 1980 more than 80 PCB transformers were in use at MOTBY. All PCB transformers were either removed or retrofilled by 1994. Other PCB-containing equipment continues to be inventoried and removed.	PCB contaminated soil and liquid	Varies depending on removal projects. In past, significant amounts of soil and PCB dielectric fluid generated during removal activities.	PCB material, is presently staged at its original location, at the Building 101 Electrical Shop, or in Building 111 prior to off-site disposal to approved TSD or recycling facilities. Previously, PCB material was staged at various locations including Building/Areas 14, 63, 101, 103, 105, and 203/4 prior to disposal through the EMO, DRMO, or contractors.

recycled paper

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ecology and environment

Table 1-4
FORMER HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
4	4	Former Aboveground Preservation Compound Tank	Used preservation compound may have been generated as a result of dipping of material into preservation tank.	Preservation compound	Unknown.	Unknown disposal practices. Existence of tank has not been confirmed.
15	15A	Former Motor Repair Shop	A Motor Repair Shop operated at this location from 1972 to 1982.	Waste oils, grease, lubricants, antifreeze	Unknown	Unknown disposal practices. Waste oil was reportedly accumulated in drums on the east and west side of the building. Possible disposal through DRMO.
32	32	Former Rust Removal/Corrosion Prevention Rooms	Rooms on the first floor south side of the building were used for equipment rust removal/corrosion prevention from the 1940s to the 1980s.	Corrosives, degreaser ("Rustclean 15" rust remover solvent by Octagon Process, Inc.), oils	Unknown. During the January 1996 EBS survey approximately 5-10 gallons of potentially hazardous waste was observed.	Unknown disposal practices. Limited amounts of waste may still be present in tanks.
35	35	Former Cold Storage Plant	The Cold Storage Facility was used from 1943 to 1992.	Cleaning agents, battery acids, anhydrous ammonia, waste oil contaminated with ammonia.	Exact generation of waste ammonia and other wastes unknown. Approx. 250 gallons of waste oil produced per year.	Wastes were apparently accumulated in drums on-site. Disposal practices unknown. Possible disposal via the EMO or the DRMO. Operation of the Cold Storage Facility ceased in approximately 1992. Ammonia was removed from the coolant system around 1994. Hazwaste was recycled through a removal contractor at that time.
42	42-2	Former Army Photo Lab #1	The 2nd Floor Army Photographic Laboratory #1, was used from an unknown date until 1993, when the operation moved to a room within the 2nd Floor Defense Printing Plant.	Photo lab wastes (developer and fixer), silver	Unknown. Quantities are expected to have been small.	It is presumed that waste developer and fixer were stored at the lab during its operation and then disposed via the EMO or DRMO. However, it is also possible that these wastes were historically discharged to the sanitary sewer.
42	42-2	Former Army Photo Lab #2	The 2nd Floor Army Photo Laboratory #2 operated from January 1993 to 1995.	Photoprocessing wastes (developer and fixer), silver	Unknown. Quantities are expected to have been small. During the January 1996 EBS survey, a 5-gallon container with silver waste was noted.	A silver recovery unit was used to treat photoprocessing chemical wastes prior to discharge to the sanitary sewer. Silver waste was accumulated prior to disposal via the EMO.

Table 1-4
FORMER HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
42	42-5	Former Army Printing Plant	The 5th Floor-Army Printing Plant was used from at least 1974 until January 1993.	Photo processing wastes, petroleum-based solvents and alcohol-based solvents contaminated with ink.	Varying quantities of wastes generated depending on plant activity. Between 1989 and 1990 up to forty four 1-gallon containers were noted at any one time.	Until 1993, a SRU treated photographic processing wastes at the 5th floor Printing Plant. It is possible that other printing wastes were being discharged to the sanitary sewer. The printing plant operation was moved to the 2nd floor in 1993.
42	42-5	Former Solvent Dip Room	A "Dip Room" was installed on the 5th floor in 1945. The operation ended at an unknown date.	Stoddard Solvent, oils	In 1945, 200 gallons of Stoddard solvent was noted as stored in the diptank. Waste generation rates are unknown.	Unknown disposal practices.
42	42-6	Army Photo Lab	The 6th Floor Army Photographic Laboratory, located in Room 612, operated from an unknown date until August 1991.	Spent photoprocessing chemicals (solvents, developer, fixer), and silver	Varying quantities of spent photoprocessing chemicals were generated. In 1986, during an inventory of hazardous waste generation areas, 500 gallons of hazardous waste were noted stored at this location.	Historically, photographic wastes were discharged to the sanitary sewer terminal-wide. Some wastes were also possibly stored prior to disposal via the EMO or DRMO. Use of a silver recovery unit at the lab started around 1986. Room 612 is no longer used as a photo lab.
44	44A	Former Vehicle Wash Rack at Building 44A	A vehicle wash rack was formerly used in the northerly bay of Building 44A.	Motor oil, other vehicle fluids	Unknown	Intercepted oil was collected in a 1,000 gal waste tank east of the oil/water separator. Removal frequency and disposal of oil is unknown.
44	44B	Former Truck Maintenance Operations	Vehicle maintenance was performed in the 1940's on forklifts and in more recent years on firefighting vehicles. No maintenance is currently performed.	Solvents, paint, antifreeze, pesticides, acids, bases, cleaning agents, waste oil	No information was found on quantities generated prior to 1993. No generation currently occurring.	Unknown disposal practices. Possible disposal via either EMO or DRMO. Building 44B was demolished and reconstructed in 1993-1994. Maintenance activities are not presently conducted.
45	45	Paint Spray Booth	Spray painting was reportedly performed in a booth within the Bldg. 45 maintenance area from 1977 until 1992	Waste solvent and paint.	Unknown. No hazardous wastes were noted during the January 1996 EBS survey.	Unknown disposal practices. Previous disposal possibly through DRMO.

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Table 1-4
FORMER HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
72	72A	Former Chemistry Laboratory	A chemistry lab operated at Building 72A from approximately 1961 to 1970.	Unknown chemical laboratory wastes.	Unknown	Unknown disposal practices.
72	72A	Possible Dry Cleaner	A dry cleaning facility was reportedly operating at Building 72A in 1989 when a SPCC plan was prepared.	Trichloroethylene	Although TCE was reported as stored at this location, actual storage or waste generation could not be confirmed.	Unknown disposal practices.
91	91C	Former Paint Shop	Building 91C was used as a paint spray building from 1957-1972. Paints that were used at Building 91C were stored at Building 91E.	Waste paint and solvents.	Unknown.	Unknown disposal practices.
91	91F	Former Car Wash	A car wash was in use from 1983 to approximately 1995. The wash area was connected to an oil/water separator.	Motor oil and other vehicle fluids.	Unknown	Intercepted oil from the oil/water separator apparently accumulated in the separator. The destination of treated water is unknown. The separator piping was removed in 1995 and the vault abandoned in place.
101	100	Building 100 Machine Operations and paint stripping	Machine and structural shop from 1943 to 1996, with steel-working machinery recessed into berths (pits) sunk into the floor, and welding and grinding areas, freight elevators; cranes; hoists and general warehouse areas.	Metals, waste oil, solvents paint waste	Unknown generation rates for general mechanical activity. Paint stripping in 1992 generated five residue piles of unknown volume and up to thirty 55-gallon drums.	Unknown disposal practices for general machine operations waste. 1992 paint stripping waste were stored in residue piles and in 25-35 drums inside and outside the building. Subsequent sampling by EPA showed that the waste could be disposed as nonhazardous material. Waste oil drums have been stored east of 105, possibly from 100 activities.
101	101	Former Acid Room	An "Acid Room" was located in the north-central portion of Building 101 in the 1940s.	Unknown	Unknown	Unknown disposal practices.

Table 1-4

FORMER HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
100N	106	Former Garage	A garage operated at 106 from 1943 to 1969 and had a "grease pit" for servicing of large vehicles.	Waste motor oil and other vehicle fluids	Unknown	Disposal practices unknown. Some discharges may have occurred to sanitary sewer, though grease and oil would have accumulated in grease trap. A waste oil UST was identified on facility utility maps at the former 106 garage, but construction details have not been located.
100N	113	Former Deperming Station Powerhouse	Building 113, was used as the deperming station "powerhouse" from 1944 to 1947. The building housed large numbers of submarine batteries for deperming operations.	Battery acid, lead	There is reference to use of 120 ULX65 submarine batteries. Waste generation rates unknown.	No information was located if waste was generated and if so, where and how it might have disposed of.
100N	116	Former Boiler House	Building 116 was the boiler house for the Deperming Station from 1944 to 1947 and for the Salvage School from 1951 to 1958.	Boiler cleaner chemicals	Unknown	Unknown
100N	128	Former Paint Spray Booth	Building 128 was a former spray paint booth used from 1941 to 1957.	Waste paint and solvents	Unknown	Unknown
103	104	Former Boiler House	Two coal-fired boilers operated in Bldg. 104 to generate steam heat from 1943 to sometime in the 1960s.	Boiler cleaning chemicals	Unknown	Unknown
108	110	Former Paint and Oil Shop	Building 110 was a Paint and Oil Shop from 1943 to 1993.	Waste paint and solvents	Unknown	Unknown

Table 1-4

FORMER HAZARDOUS WASTE GENERATING ACTIVITIES

Study Area	Facility Number	Activity	Description	Name of Waste Material	Generation Rate	Waste Disposal
100 DD	132	Drydock	Sludges and sediment accumulated in the bottom of the drydock as a result of ship repair operations and the filling/drainage of the drydock. The drydock operated from 1942 to 1988 and is currently idle.	Metals, sandblasting residue, paint flakes, oils	Unknown. Generation would have depended on drydock activity and would have been episodic.	Sediments removed out of the drydock and also periodically washed out to New York Harbor via the drainage tunnel. Some of the material from sandblasting was apparently dumped in the facility landfill. 1992 sampling of residual sludge showed concentrations below TCLP levels.

Table 1-5			
ON-BASE TENANTS			
Tenant	Building/Floor	Parcel	Departure Date
Army and Air Force Exchange Service (AAFES)	42/5	42	Terminated
AAFES PX	91D	91	TBD
Bayonne RSMO	82/1	82	FY1999
BEC/BTC	82/1	82	FY01
	42/7	42	FY01
Credit Union	42/1	42	LRA ¹
Customs (unofficial tenant)	41/1	41	FY1998/1999
Defense Finance and Accounting Service	42/7	42	June 1997
Defense Naval Investigation	42/5, 7	42	June 1998
Defense Printing Service	42/5	42	TBD
Federal Bureau of Investigation (FBI)	32/2	32	LRA ¹
Federal Emergency Management Agency (FEMA)	42/3	42	LRA ¹
Garrison	Various	Various	FY1999
IIQMTMCEA	82	82	FY1999
	42	42	FY1999
Information Management (HQ)	42/5, 6	42	TBD
HQPAL/Staff Engineer	82/2	82	June 1998
Manpower Staffing Standard (MSIII)	42/7	42	FY1997
Military Sealift Command - Lesser Antilles (MSCLANT)	42/3,4,5,7	42	FY1998
MSCLANT (Berthing)	S1 and S2	NY4	FY1998
National Archives	12, 22	12, 22	June 1999
Navy Material Transport	82/2	82	Terminated
Navy Resale	32/1	32	June 1998
1301st Contract Administration	42/5	42	FY1999
1301st MPC	COA/42	42	June 1998
U.S. Air Force Water Port	82/2	82	June 1998
U.S. Army Corps of Engineers - New York District	101/2	100N	TBD
	42/3	42	TBD

Table 1-5			
ON-BASE TENANTS			
Tenant	Building/Floor	Parcel	Departure Date
U.S. Army Corps of Engineers - New York District Kill Van Kull Project	Unnumbered	237	
U.S. Army Corps of Engineers (MacFarlan)	N-1	NY2	
U.S. Army Material Command	82/2	82	Terminated
U.S. Army Medical Department Activities	52B	52	TBD
U.S. Army Recruitment Battalion (Newburgh)	42/6	42	Terminated
U.S. Postal Service	32/3,4, 42/1	32, 42	FY1997
	42/1	42	TBD
CONTRACTORS			
Contractor	Building/Floor	Parcel	Function
Byers	42/1	42	Custodial
Career Transition Outplacement	82/1	82	Outplacement
Carlson Wagonlit	91A	91	Army Travel
International Terminal Oper. Co. Inc. (ITO) Stevedoring	32	32	Stevedoring
Kenmar Construction	101/1	101	Base Maintenance
LBM	44A	44	Motor Pool
Pest Control	101/1	101	Entomology
PYRO	101/1	101	Base Maintenance
SATO	42/4	42	Navy Travel

Note:

- ¹ Working with LRA to remain.

2

Property Disposal and Reuse Planning

Under Public Law 101-510, the Department of the Army (DoA) is required to dispose of excess property according to the Federal Property and Administrative Services Act of 1949, as amended, Federal Property Management Regulations, and DoD policies. This section describes the status of the disposal and reuse planning process for MOTBY, its relationship to environmental programs, and the methods that will be used to transfer MOTBY property.

2.1 Status of the Disposal and Reuse Planning Process

The disposal of MOTBY property is dependent upon four interrelated activities: the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) process, the development of a community reuse plan, completion of the EBS, and development of a disposal plan.

The BCT has taken action to initiate each of these activities as well as to ensure that public input and full community involvement are achieved throughout the entire disposal and reuse planning process.

2.1.1 NEPA/EIS Process

The NEPA process requires the preparation of an EIS and Record of Decision (ROD) before any property is transferred. An EIS is an evaluation of the impact that the closure activity will have on the surrounding community and its resources.

This process was initiated on May 2, 1996 and historically has required 18 to 24 months for completion. The EIS will be prepared by Tetra Tech, Inc. under contract to the U.S. Army Corps of Engineers (USACE) - Mobile District. There has been a delay in this effort as a direct result of the local base reuse plan having been delayed from February 1997 to October 1997. It is anticipated that the EIS will now be completed in January 1999.

2.1.2 Status of the Local Reuse Plan

In October 1995, the governing body of the City of Bayonne established the Bayonne MOT Base Reuse Commission to serve as the Local Redevelopment Authority (LRA) for MOTBY. The purpose of this LRA is to review the reuse potential of the land and structures of MOTBY, develop a comprehensive redevelopment plan, to provide for the economic development of the City of Bayonne, and to minimize any adverse impact the transition may have on the communities adjacent to the boundaries of MOTBY.

Based on early indications of potential specific reuse scenarios for several parcels at MOTBY, the LRA has heard presentations from parties interested in facility property and has begun deliberation of the BRAC process to facilitate the transfer of property and to develop the Local Reuse Plan (LR Plan). Completion of the plan has been delayed by three to four months, and it is now expected to be issued in October 1997. This delay will have an impact on the delivery dates of other studies, as noted in the individual sections.

2.1.3 Status of the EBS

DoD policy requires that an EBS be prepared before any property can be sold, leased, transferred, or acquired. The EBS serves two primary functions: to compile all pertinent information to be used by the Army when making decisions concerning real property transactions before and after the scheduled closure of MOTBY, and to meet the Army's obligations under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Community Environmental Response Facilitation Act (CERFA), which requires the early identification of uncontaminated property to expedite its lease or transfer to the public. An EBS was prepared to document the physical condition of the facility property. The document is based on land use practices, including the storage, use, release, disposal, and treatment of hazardous substances or petroleum products, throughout the history of the installation. The draft EBS was issued in May 1996 and has been reviewed and revised. The final EBS was completed and distributed in January 1997.

2.1.4 Status of the Disposal Plan

The Army will have its disposal plan completed by its EIS contractor once the LRA LR Plan is finished. Currently, the LRA LR Plan is expected to be finalized in October 1997. The plan will address the reuse planning goals of the local community and will incorporate Army BRAC disposal hierarchy requirements established by Public Law 100-526 and the Federal Property and Administration Services Act, the Surplus Property Act, the

Federal Property Management Regulations, and the 1994 Defense Authorization Act. The hierarchy established is as follows:

- 1) The facility is offered to DoD agencies for use;
- 2) The facility is offered to other federal agencies;
- 3) The facility is offered to sponsoring organizations for the homeless under Section 501 of the McKinney Act;
- 4) The facility is offered to state and local government agencies through public benefit discount conveyance;
- 5) The facility is offered to a redevelopment authority at or below fair market value through an economic development conveyance; and
- 6) The property is offered through negotiated or competitive bid sale to private parties.

However, this process was amended in 1994 by the Base Closure Community Redevelopment and Homeless Assistance Act of 1994 and again by Title XXIX of the 1995 Defense Authorization Act. These two laws were designed to accommodate impacted communities multiple interests in reuse and to meet the national priority of assisting homeless persons. The main impact of these laws was to exempt 1995 BRAC Commission installations from the provisions of Title V of the McKinney Act by instituting a community-based process for assisting homeless persons which allows for these needs to be balanced with the need for further economic development.

2.2 Relationship to Environmental Programs

Disposal and reuse planning and corrective actions are linked with environmental investigation and compliance programs because federal property transfers to nonfederal parties are governed by CERCLA Section 120(h)(3)(B)(i). Furthermore, because residual contamination may remain on some properties following completion of a remedial action, future uses of the property may be restricted.

CERCLA requires that deeds for federal transfer of contaminated property contain a covenant which ensures that all remedial actions necessary to protect human health and the environment have been taken. This requirement stipulates the appropriate remedial and/or removal actions must be selected and implemented at areas of contamination before transfer to private parties can occur. CERCLA further states that maintenance of long-term remedial action operations if demonstrated as successful, does not preclude the transfer of property. This deed requirement applies only to property on which a hazardous substance was stored for 1 year or more, or is known to have been disposed or released. CERCLA also requires that information concerning hazardous substance storage (i.e., type, quantity, and time period) is

included on deeds for property where a hazardous substance was stored for more than 1 year and release or disposed.

Before the recommendation to close MOTBY was announced, several programs operated concurrently at MOTBY to handle various aspects of environmental operations and cleanup. Principal environmental programs included the Installation Restoration Program (IRP), for which 10 sites were evaluated during a two-phase study in 1988 and 1994; non-IRP assessment and remediation of underground storage tanks; a 1980 United States Army Environmental Hygiene Agency (USAEHA) facility assessment, and MOTBY-led assessments and remediation for PCBs and asbestos.

A facility-wide remedial investigation/feasibility study (RI/FS) has been initiated at MOTBY. This investigation has been scoped to identify and address remedial work required for sites identified during previous work and to address additional areas based on the findings of the EBS. To facilitate an expedited and smooth restoration process, that makes property available for community reuse as speedily as possible, a site-specific fast-track RI/FS is being conducted for the LRP, as a separate OU from the rest of the facility. It will follow an accelerated timeline compared to a typical RI timeframe and sampling for this investigation will supplement the New Jersey Transit investigations from which data will be restated in the overall MOTBY RI/FS Report. This fast track RI/FS is expected to be completed by mid-1997. Actual transfer of this property, however, will be delayed until the overall MOTBY EIS is completed.

2.3 Property Transfer Methods

Sections 2.3.1 through 2.3.7 provide a summary of the methods that may be used to transfer or dispose property. The methods include:

- Federal-to-federal transfer;
- No-cost or discount public benefit conveyance;
- Negotiated sales;
- Competitive public sale;
- Economic development conveyance;
- Widening of public highways; and
- Interim leasing.

These transfer methods were identified from U.S. Army BRAC disposal protocols established by Public Law 100-526, the Federal Property and Administration Services Act, the Surplus Property Act, the Federal Property Management Regulations, and the 1994 Defense Authorization Act. Public input concerning these transfer methods will be fostered through the RAB,

LRA, and the LR Plan. Prior to any leasing or permitting, the U.S. Army must complete a Finding of Suitability to Lease (FOSL) or Finding of Suitability to Transfer (FOST), documenting that the facility is clean and safe to use. Table 2-1 provides a summary of the known planned disposition and methods of transfer planned for each BRAC parcel. Figure 2-1 presents a graphical representation of this information.

2.3.1 Federal-to-Federal Transfer

The Army may transfer property to another federal agency or to another part of DoD. The federal screening process that identifies MOTBY property available for transfer to other federal agencies has been initiated and is ongoing. Presently, the only planned federal-to-federal transfer of property is that of Lots 75 and 85 to the United States Coast Guard.

2.3.2 No-Cost or Discount Public Benefit Conveyance

State or local government entities may obtain property at no cost or less than fair market value when sponsored by a federal agency for uses that would benefit the public (e.g., health and education, parks and recreation, wildlife conservation, or public health). A transfer at no cost can occur when the property has no commercial value, or the cost of continued care and handling would exceed the estimated proceeds from its sale. Presently, there are no plans to transfer property via no-cost or discount public benefit conveyance.

2.3.3 Negotiated Sale

Property not identified by MOTBY as a part of its disposal plan may be disposed of by negotiation to state and local agencies, based on fair market value. A sale can also be negotiated with private entities. As of this BCP, negotiated property sales that have been initiated include Lots 237 and the LRP, which are planned for sale to New Jersey Transit for development of a light rail line and parking area pending resolution of environmental issues.

2.3.4 Competitive Public Sale

The Army's policy is to encourage competition in the sale of property to private entities either through sealed bids or auction. As of this BCP, no competitive public sales have been initiated.

2.3.5 Economic Development Conveyance

The 1994 Defense Authorization Act provides for the conveyance of property to an LRA at or below fair market value using flexible payment terms for recoupment up-front or over time. The Economic Development Conveyance is intended to spur economic recovery and job creation in the local community. To qualify for this conveyance, the LRA must submit a request to the DoA describing its proposed economic development and job creation program. As of this BCP, no such requests have been submitted.

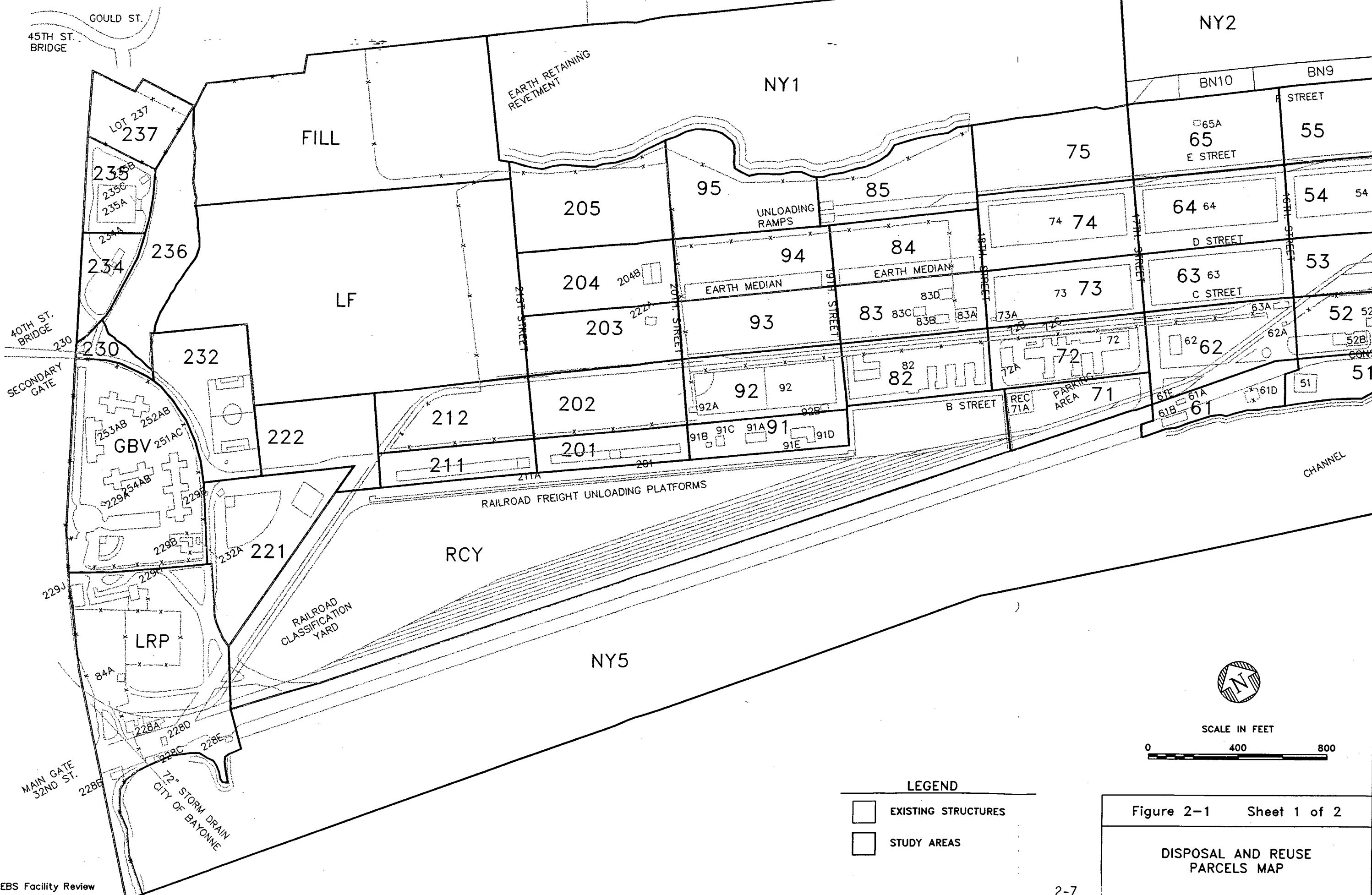
2.3.6 Widening of Public Highways

There are no ongoing or currently scheduled road widening projects associated with MOTBY parcels.

2.3.7 Interim Leases

Predisposal use of facilities by a non-Army entity can be accomplished through the execution of leases, licenses, or permits. The Military Leasing Act of 1956 (10 U.S.C. §2667), as amended, permits the U.S. Army to implement interim leasing of excess facilities if it is in the public interest. Under this provision, the lease cannot exceed 1 year but may be annually renewed by the U.S. Army for up to 5 years. A long-term lease may be instituted if it would promote national defense or be in the public's interest. Leased properties may be transferred by deed to future owners when the property is disposed.

To facilitate the reuse of surplus property, and in accordance with DoA policy and LR Plan goals, the Army is currently pursuing the interim leasing of facilities at Berth S-1, the Dry Dock, and Building 14. The expected disposition of these leases following base closure has not been established. Other legal agreements and interim leases are summarized in Table 2-2.

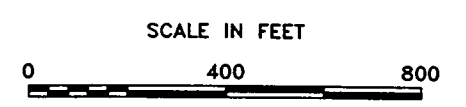
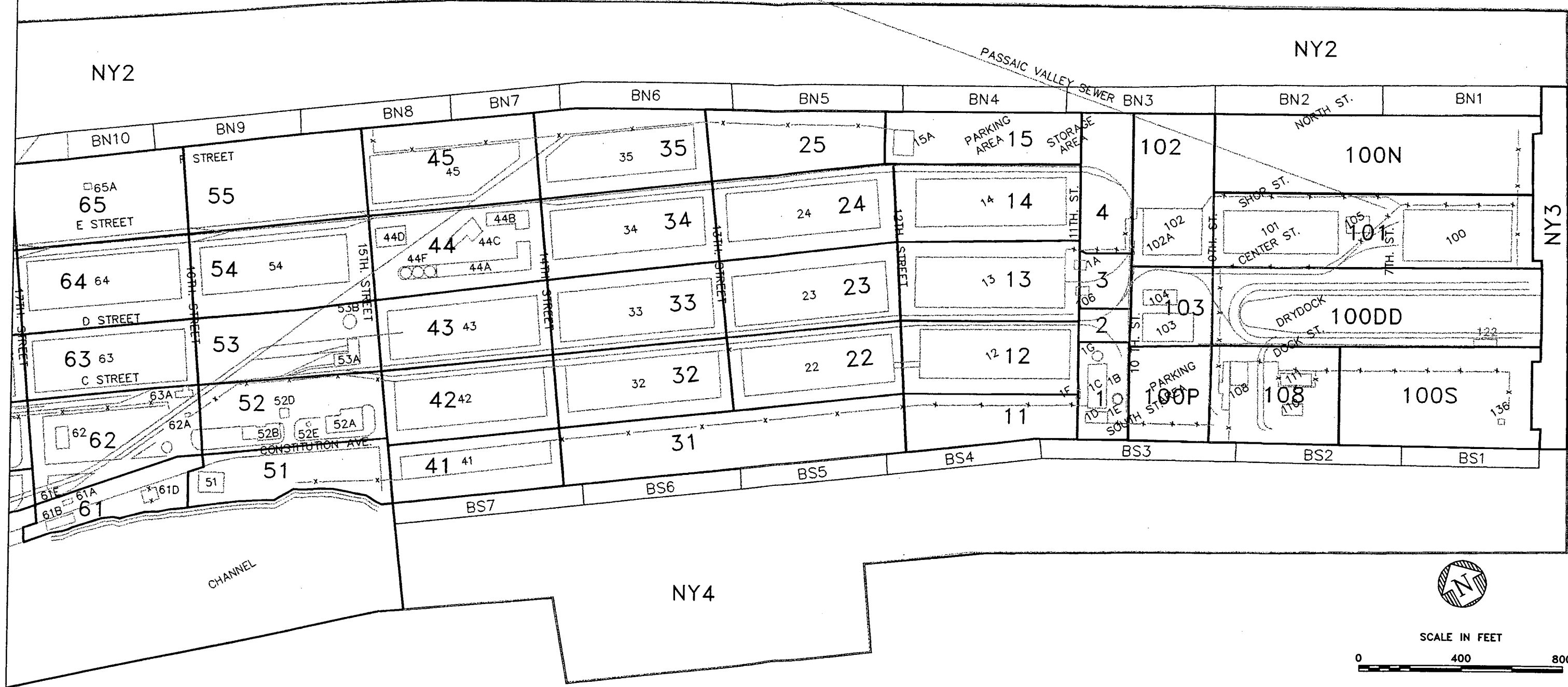


Source: EBS Facility Review

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Figure 2-1 Sheet 1 of 2

DISPOSAL AND REUSE PARCELS MAP



- LEGEND**
- EXISTING STRUCTURES
 - STUDY AREAS

Figure 2-1 Sheet 2 of 2

**DISPOSAL AND REUSE
PARCELS MAP**

Table 2-1

PARCEL DISPOSITION SUMMARY

Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
1	1.79	1B 1C 1D 1E 1F 1G	Water Tower STP - Sewage Disposal Plant STP - Sludge Drying Beds Valve House - Water distribution STP - Secondary Sewage Control Room STP - Ship Waste Equalization Tank					
2	0.62	None	Open Area					
3	1.05	106 1A	Fire Training Tower STP - Sewage Pump House					
4	2.65	None	Open Lot					
11	3.11	None	Open Lot					
12	4.68	12	General Warehouse					
13	5.22	13	General Warehouse					
14	5.16	14	General Warehouse		Unknown	Interim Lease	LRA	Interim Soundstage
15	3.7	15 15A	Open Lot Administration Building					
22	4.58	22 22A	General Warehouse Connecting Passageway					
23	4.98	23	Hazardous Material Warehouse					
24	5.22	24	Household Goods Warehouse					
25	3.99	None	Open Lot					
31	7.24	None	Open Lot					
32	4.65	32	General Warehouse					

Table 2-1

PARCEL DISPOSITION SUMMARY

Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
33	4.78	33	General Warehouse					
34	5.04	34	General Warehouse					
35	5.03	35	Freezer plant					
41	3.59	41	Transit Shed					
42	4.6	42 42B	Warehouse & Administration Building Pedestrian Gatehouse					
43	4.55	43	Container Stuffing Warehouse					
44	5.14	44A 44B 44C 44D 44E 44F	Motor pool Fire Station Boiler Plant Vehicle Maintenance Shop Former Gas Station Aboveground No. 6 Fuel Oil Storage Tanks	RI No. 3: USTs at 44D, 44E RI No. 10: USTs at Boiler Plant				
45	5.46	45	Maintenance Shop	RI No. 5: Battery Acid Pit				
51	3.64	51	Liberty Lodge					
52	4.63	52A 52B 52D 52E	Harbor View Community Club Dispensary Small Warehouse Gazebo					
53	4.55	53A 53B	Railroad Maintenance Shop Water Tower					
54	5.7	54	Warehouse					
55	5.79	None	Open Lot					

Table 2-1

PARCEL DISPOSITION SUMMARY

Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
61	2.38	61B 61C 61D 61E	Library Fitness Trail Primary Substation Sentry booth- Truck Checking					
62	5.23	62 62A 62F	Post Diner Sentry Booth Flagpole					
63	4.09	63 63A	General Warehouse Weighmaster's Office					
64	5.29	64	General Warehouse					
65	5.4	None 65A 65B	Open Lot Toilet Transformer Distribution Center					
71	3.16	71A	Tennis Court					
72	4.43	72 72A 72B 72C	Enlisted Men's Barracks and Gym Autocrafts Shop, Indoor Firing Range Swimming Pool Picnic Shelter					
73	4.25	73 73A	General Warehouse Sentry Station					
74	5.49	74	General Warehouse					
75	5.34	None	Open Lot		September 1996	Federal-Federal	USCG	Coast Guard Station
82	4.23	82	Administration Building and Chapel					

Table 2-1								
PARCEL DISPOSITION SUMMARY								
Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
83	3.97	83 83A 83B 83C 83D 83E	POV lot POV Administration Building POV Baggage Shed POV Processing shed POV Processing shed Abandoned Sewage Pump Pit					
84	4.26	84	POV lot					
85	4.89	None	Open Lot	RI No. 8: Fire Training Area	September 1996	Federal - Federal	USCG	Coast Guard Station
RCY	41.39	201 RCY	Railroad Freight Unloading platform Railroad Classification Yard					
91	2.63	91A 91B 91C 91D 91E	SATO, Bank and Cleaners Sewage Pump Station Storehouse CFAD Post Exchange Gasoline Station					
92	4.87	92 92A 92B 92C	Recreational and Parking Area Container Gatehouse Waiting Shelter Softball field					
93	4.22	93	Open Storage Area					
94	4.47	94	POV Lot					
95	5.29	None	Open Lot					
101	8.55	100 101 105	Structural and Machine Shop Facilities Engineering Shops and Offices North Sub Station	RI No. 6: PCB Spill RI No. 7: Building 105 Drum Storage Area				

Table 2-1

PARCEL DISPOSITION SUMMARY

Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
100N	9.13	None	Open Lot	RI No. 3: USTs at 106				
102	4.48	102 102A	General Warehouse Truck Scale and Weighmaster's Office					
103	2.33	103 104	Mill Joiner and Rigger Building Steam Generating Plant - Coal					
108	4.5	108 110 111 127	South Main Substation Former Paint Shop Hazardous Waste Accumulation Building Pump House					
100DD	9.36	122 132	Drydock Pump Well Dry Dock		June 1997	Interim Lease	LRA	World Cruise Lines
100S	7.08	130 136	Former Carrier Mock-up Applied Instruction Building (Power Control)	RI No. 3: USTs at 134				
100P	2.77	None	Open Lot					
201	2.46	None	Open Lot					
202	4.6	202	Storage Area					
203	4.25	203 222A	Storage Area Field House	RI No. 9: DRMO Storage Area				
204	4.59	204 204B	Paved Storage Area Handball courts	RI No. 4/9: DRMO Drum and Storage Areas				
205	6.25	205	Paved Storage Area	RI No. 9: DRMO Storage Area				

Table 2-1								
PARCEL DISPOSITION SUMMARY								
Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
211	2.48	211A	Administrative Office					
212	4.41	212	Storage area					
LF	29.22	LF	Landfill	RI No.1: Landfill				
221	6.27	221 221A 221B	Recreation Area Tennis Courts Picnic Shelter					
222	4.33	None	Open Lot	RI No. 2: Former Navy Storage Area				
LRP	14.2	228A 228B 228C 228D 228E 228F 229H 229J	Skill Development Center Gate house Bus Waiting Shelter Sentry Booth Administration Building Facility Sign Child Development Center Youth Activity Center Main Gate Area		January 1999	Negotiated Sale	NJ Transit	Rail Line and Parking Area
GBV	11.75	229A 229B 229E 229F 251A-C 252AB 253AB 254AB	Bus station Waiting shelter Swimming Pool Recreation Area Goldsborough Village Buildings 1, 2, 3 Goldsborough Village Buildings 4, 5 Goldsborough Village Buildings 6,7 Goldsborough Village Buildings 8,9					
230	0.79	230	Sentry Station					
232	5.67	232 232A	Recreation Area Picnic Shelter					
234	2.03	234A	Commander's Quarters					

Table 2-1 PARCEL DISPOSITION SUMMARY								
Study Area	Acreage	Facility Number	Facility Name	Known Sites	Available Transfer Date	Transfer Mechanism	Recipient	Proposed Reuse
235	2.56	235A 235B 235C	Water Treatment Plant Storehouse & BOQ Water Treatment Plant					
236	4.85	None	Open Area					
237	2.98	None	Open Lot		January 1999	Negotiated Sale	NJ Transit	Rail Line Parking Area
FILL	18.9	None	Open Area					
NY1	41.74	None	Northern Shore W. of Berthing Areas					
NY2	64.46	Berth N-1 to N-10	North Berthing Area					
NY3	4.12	Berth E-1 to E-2	East Berthing Area					
NY4	55.75	Berth S-1 to S-7	South Berthing Area		June 1997	Interim Lease	LRA	USS New Jersey
NY5	84.68	None	Southern Shore W. of Berthing Areas					

Table 2-2
EXISTING LEGAL AGREEMENTS/INTERIM LEASES

Tenant	Building/ Floor	Parcel	Interservice Support Agreement Expiration	Departure Date	Permit Expiration
Army and Air Force Exchange Service (AAFES)	42/5	42	Indefinite	Terminated	October 31, 1999
AAFES PX	91D	91		TBD	
Bayonne RSMO	82/1	82		FY1999	
BEC/BTC	82/1	82		FY01	
	42/7	42		FY01	
Credit Union	42/1	42	NA	LRA ¹	February 28, 1998
Defense Finance and Accounting Service	42/7	42	Indefinite	June 1997	NA
Defense Naval Investigation	42/5,7	42		June 1998	
Defense Printing Service	42/5	42	Indefinite	TBD	NA
Federal Bureau of Investigation (FBI)	32/2	32	Indefinite	LRA ¹	September 30, 1998
Federal Emergency Management Agency (FEMA)	42/3	42	Indefinite	LRA ¹	March 1, 1999
Garrison	Various	Various		FY1999	
IIQMTMCEA	82	82		FY1999	
	82	82		FY1999	
Information Management (HQ)	42/5,6	42		FY1999	
HQPAL/Staff Engineer	82/2	82		June 1998	
Manpower Staffing Standard (MSIII)	42/7	42		FY1997	
Military Sealift Command - Lesser Antilles (MSCLANT)	42/3,4,5,7	42	Indefinite	FY1998	September 30, 1998
MSCLANT (Berthing)	S1 and S2	NY4	September 1997	FY1998	NA
National Archives	12, 22	12, 22	Indefinite	June 1998	November 30, 1998

Table 2-2

EXISTING LEGAL AGREEMENTS/INTERIM LEASES

Tenant	Building/ Floor	Parcel	Interservice Support Agreement Expiration	Departure Date	Permit Expiration
Navy Material Transport	82/2	82		Terminated	
Navy Resale	32/1	32	Indefinite	June 1998	March 30, 1998
1301st Contract Administration	42/5	42		FY1999	
1301st MPC	COA/42	42		June 1998	
U.S. Air Force Water Port	82/2	82	Indefinite	June 1998	NA
U.S. Army Corps of Engineers - New York District	42/3	42	April 1997	TBD	NA
	101/2	100N	September 1996	TBD	NA
U.S. Army Corps of Engineers - New York District, Kill Van Kull Project	Lot 237	237	Indefinite		February 24, 1998
U.S. Army Corps of Engineers (MacFarlan)	N-1	NY2	September 1996		NA
U.S. Army Material Command	82/2	82	September 1996	Terminated	NA
U.S. Army Medical Department Activities	52B	52	June 1996	TBD	
U.S. Army Recruitment Battalion (Newburgh)	42/6	42	Indefinite	Terminated	NA
U.S. Postal Service	32/3, 4	32	Indefinite	FY1997	NA
	42/1	42	NA	TBD	November 22, 1997

2-20

3 Facility-Wide Environmental Program Status

3.1 Environmental Restoration Program Status

Throughout the past 20 years, several environmental investigations have been conducted at MOTBY. These investigations have ranged in scope from regulatory inquiries and mobilization studies to focused hazardous materials inspections and facility-wide remedial investigations. The following sections describe the various types of restoration sites identified and actions taken at MOTBY.

3.1.1 IRP Sites

Only two of the many environmental investigations, assessments, and evaluations of MOTBY have utilized IRP funds. These include a Dames & Moore Phase I RI performed in 1988 and the 1994 Dames & Moore Phase II RI performed as a follow-up to the first investigation. In the aggregate, the investigations identified 10 sites including: the Landfill, the Former Navy Storage Area, Underground Storage Tanks (throughout the facility), the DRMO Drum Storage Area, a Battery Acid Pit, a PCB Spill Area, the Building 105 Drum Storage Area, the Fire Training Area, the DRMO Storage Area, and the Boiler Plant USTs as summarized in Table 3-1. The locations of these 10 sites are identified in Figure 3-1.

3.1.2 Other Areas of Environmental Concern

Other areas of environmental concern were identified in the EBS based on either historical information or the lack of information. These areas are listed in Table 3-2 and are located in Figure 3-1. The status of each site varies based on the quantity of information known.

3.1.3 Environmental Restoration Early Actions

One element of the environmental restoration process that has been used at MOTBY is the process of an early action. Environmental restoration early actions refer to immediate

remedial actions or treatability studies which are aimed at removing sources of possible contamination and risk while at the same time providing data to be used to develop effective permanent remedial action strategies. The early actions relevant to environmental restoration are described in Table 3-3. In some circumstances, these early actions for environmental restoration are linked to early actions for compliance.

3.1.4 Fast-Track Cleanup

As part of the effort to ensure for an expedited and smooth restoration process and make property available for community reuse as rapidly as possible, a site-specific RI/FS is being conducted for the LRP as a separate OU from the rest of the facility. It is following an accelerated timeline compared to a typical RI timeframe, and sampling for the investigation will supplement the New Jersey Transit investigations from which data will be restated in the overall MOTBY RI/FS report. The work plan for this effort was submitted in January 1997, and a draft RI report was submitted in May 1997. It is anticipated that the fast track RI/FS and any associated remedial action will be completed by the fall of 1997. Transfer of the property can, however, not take place until the MOTBY EIS is complete.

3.1.5 Facility-Wide Source Discovery and Assessment Status

The process of identifying areas of concern at MOTBY continues as findings of the Dames & Moore RI have been compared to the information presented in the EBS. This comparison has helped scope the RI/FS which, in addition to known sites, is to investigate sites for which no information was found during the EBS. In this way, all contaminated sites at MOTBY will be identified.

3.2 Compliance Program Status

Unlike environmental restoration projects, which are primarily regulated by RCRA and CERCLA corrective action programs, compliance-related activities are regulated by a number of different programs. These programs include RCRA subtitles C, D, and I, the Clean Water Act (CWA), the Clean Air Act (CAA) and its amendments, the Toxic Substances Control Act (TSCA), NEPA, and state programs administered by the NJDEP.

Prior to the time at which MOTBY was designated as a BRAC installation, the Environmental Management Office (EMO) at MOTBY used the environmental compliance assessment (ECAS) protocol, in accordance with Army Regulation (AR) 200-1, Sections 15-9 and 13-11, to monitor its compliance status. Since 1995, however, the compliance program

at MOTBY has been retailored to meet two different missions: to maintain compliance of all current and future activities at the installation until closure and to meet the BRAC compliance requirements for closure of the facility. The operational and closure-related compliance projects are described below and are provided in Tables 3-4 and 3-5, respectively.

When necessary, MOTBY has also used early actions to achieve compliance. Compliance early actions include removal of USTs, asbestos identification, and PCB transformer removal or modification. These are listed in Table 3-6 and further described below.

Compliance has also been maintained through various regulatory notifications, registrations, and permits as summarized in Table 3-7.

3.2.1 Storage Tanks

3.2.1.1 Underground Storage Tanks

Although USTs are federally regulated by RCRA Subtitle I (40 Code of Federal Regulations (CFR) 280), regulatory authority for USTs at MOTBY resides with the NJDEP under N.J.A.C. 7:14B-1, 4, 5, and 6.

In 1992, MOTBY began to implement two projects to upgrade its storage tanks. As part of these projects, 25 USTs located around the facility were to be removed or replaced, and the boiler plant USTs were to be closed and replaced by new ASTs. For each removal, an approval for closure was obtained, the tank was removed, and the area investigated for contamination. However, as of this BCP, final closure approval is still under review by NJDEP for all tanks.

Currently, most to all tanks have either been removed or replaced with state-of-the-art ASTs or have been upgraded with high level alarms and overflow protection. A comprehensive listing of all USTs, past and present, associated with MOTBY is provided in Table 3-8.

3.2.1.2 Aboveground Storage Tanks

Aboveground storage tanks at MOTBY must be managed in compliance with AR200-1, the federal regulations described in 40 CFR Parts 110, 112, and 116, and the New Jersey Pollution Prevention regulations.

Currently, there are 42 ASTs located at MOTBY that are used for the storage of fuel for emergency generators, heaters, boilers, or waste oil. As the facility continues with its storage tank upgrade program described previously, the number of ASTs should increase until

final shut-down activities begin. A listing of all ASTs, past and present, associated with MOTBY is provided in Table 3-9.

3.2.2 Hazardous Materials/Waste Management

Hazardous materials and wastes are managed in compliance with the requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA), Executive Order 12385, Spill Prevention Control and Countermeasure (SPCC) requirements in 40 CFR Parts 110 and 112, New Jersey regulations, AR200-1, RCRA, and other applicable regulations.

Although the use and storage of hazardous material and wastes associated with the shipping and military support operations of the facility have been decreasing since the installation was designated for closure, ongoing operations will require continued hazardous materials and waste management. Hazardous materials received as part of a shipment of cargo are transferred to one of two primary transfer warehouses used for hazardous materials, Buildings 23 and 73. Building 23 is used as the primary transfer warehouse for general hazardous materials. Building 73 is used as the transfer warehouse for special hazardous materials including ordnance and radioactive materials. Materials that are used at MOTBY include solvents, battery acids, photographic and X-ray processing solutions, alkali cleaners, paints, pesticides, janitorial supplies, and boiler treatment and cleaning chemicals.

Until 1991, the DRMO was responsible for managing the disposal for these substances. The agency used Building 63 and Areas 203, 204, and 205 as its principal storage locations for all types of materials including hazardous materials. However, after a facility-wide survey of the location, types, and quantities of hazardous materials and wastes was completed in 1990, Building 14 was noted to have the largest quantity of wastes of any storage area. After the DRMO was relocated to Dover, New Jersey in 1991, Building 14 became the depository for hazardous wastes for the facility. Later, MOTBY made improvements to Building 111 so that it could serve as its 90-day hazardous waste storage facility. After the renovations were completed in 1992 and all hazardous substances had been characterized and either removed for off-site disposal or moved to Building 111, Building 14 was decontaminated.

Currently, the MOTBY EMO is responsible for the management of hazardous substances facility-wide. In addition to maintaining Building 111, the EMO maintains Material Safety Data Sheets (MSDSs) for all hazardous chemicals on the facility, and monitors its employees for hazardous materials training.

3.2.3 Solid Waste Management

Approximately 2,500 to 2,700 cy of solid waste is generated at MOTBY per month. Solid waste management is contracted to Browning Ferris Industries who owns the on-base dump bins and manages disposal activities. Solid waste is collected 6 days per week and is transported to the Meadowlands Landfill.

MOTBY is required by the State of New Jersey to recycle 25% of their solid waste. MOTBY currently recycles cardboard, old office records, office paper, newspaper, computer paper, tin, aluminum, other scrap metal, and glass. Paper products are recycled at various off-site locations. DRMO handles the resale of scrap metal. Other materials are reportedly collected in dumpsters provided by the City of Bayonne.

3.2.4 Polychlorinated Biphenyls (PCBs)

PCB transformers were used at MOTBY since the 1950s when PCB-containing oil began to be used as dielectric fluid. As of the early 1980s more than 80 PCB transformers were in use at buildings around the facility, most often in enclosed vaults but sometimes located on outside concrete pads or in substation yards.

Starting in 1982, MOTBY began converting to non-PCB transformers. No PCB transformers have reportedly been installed at MOTBY since the Final Ban Rule (40 CFR 761) went into effect in 1982. Since that time, MOTBY has only purchased electrical transformers that utilize mineral oil as the dielectric cooling oil. In the 1980s, the MOTBY Fire Department tracked all PCB transformers and their inspection and maintenance history on computer printouts. A review of some of these inspection records from the mid-1980s identified that periodic leaks, most of a minor nature occurred at many of the transformers. The records also show that cleanup and repair was performed when necessary.

In 1992, MOTBY initiated a large-scale removal, replacement, and retrofill project of all PCB transformers at the facility. By February 1994, all PCB transformers had reportedly been either removed from service or retrofilled with non-PCB fluid and no PCB transformers were in storage for reuse. In total, from 1985 through 1994, 87 transformers, nearly 300 PCB containers, and two bulk-waste containers consisting of PCB oil, soil, and debris had been removed for disposal off site. The last remaining PCB transformers were reportedly removed from the facility in mid-1994. No records of confirmatory wipe or soil sampling have been identified.

During the RI effort, a sample is to be collected at each former PCB transformer location, to ensure that no residual contamination exists in the area.

3.2.5 Asbestos

In 1990, MOTBY retained Foster-Wheeler Enviroresponse, Inc. to conduct a base-wide survey and produce its Asbestos Management Plan. The purpose of the survey was to identify the friability, condition, damage, and accessibility of all asbestos-containing material (ACM) around the facility. The results of the ACM survey were used to conduct an exposure risk assessment, based on a logical risk algorithm, to establish a prioritization scheme for ACM abatement projects and facilitate long-term planning for the base facility engineering office. MOTBY has used the survey and exposure risk assessment to identify ACM in need of repair or control and to integrate asbestos concerns into other ongoing and periodic facility maintenance and upgrade projects.

Since 1992, there have been various ACM abatement projects including the removal of asbestos found in Buildings 11, 51C, 31, 91F, 120, 91F, and 130, during the demolition and removal of these structures. Removal projects in the past 4 years have included removal of some ACM elements at Buildings 12, 22, 44B, 44C, and Goldsborough Village.

An asbestos abatement program to remove all friable asbestos is expected to begin during 1997. Funding for targeted asbestos removal in four buildings has been identified. As a general rule, friable asbestos is considered for removal only if presenting an immediate hazard to people currently working on or using the base. No action will be taken to remove it from abandoned buildings. Instead it will become a disclosure item for inclusion in any deed of transfer or sale. Any non-friable asbestos found will be identified by type, listed, and transferred along with the property.

3.2.6 Radon

According to an undated questionnaire concerning MOTBY's environmental programs, "a comprehensive radon analysis study has been accomplished in accordance with applicable regulations" at MOTBY. It is presumed that analytical results presented in a memorandum dated May 30, 1990, comprise a portion of this comprehensive survey. The memorandum presents the analytical results for 31 radon Alpha Track Monitors (ATMs), out of 65 ATM analyses, which were ordered by MOTBY. Results for the 31 ATMs, which included duplicates and blanks indicate no detection of radon at concentrations greater than 4 picoCuries per liter (pCi/L) (detection limit). No details concerning sample locations were provided.

3.2.7 Wastewater and Stormwater Discharges

With the exception of buildings located at Goldsborough Village and the Main Gate complex and those served by dedicated septic systems, all of the buildings at MOTBY are served by the on-base sanitary sewer system. Sewage from Goldsborough Village and the Main Gate complex flow into a collection system leading to the Bayonne municipal sewage treatment plant (STP). In 1972, the MOTBY STP was upgraded to an extended aeration, activated sludge system with a capacity of 180,000 gallons per day. Effluent from the plant is chlorinated within a chlorine contact chamber prior to discharge into Upper New York Bay.

Discharge from the MOTBY STP is currently permitted under New Jersey Pollution Discharge Elimination System (NJPDES) Permit No. NJ0020257. The permit was modified in 1992 and includes effluent restrictions and requirements for flow, biochemical oxygen demand, total suspended solids, fecal coliform, and oil and grease.

Sludge generated at the STP is managed through the operation of phragmites reed grass beds for which a new draft NJPDES permit (No. 0108251) was issued in December 1995.

Three active and one inactive septic systems, located in Study Areas 230, 234, 235, and 236, were identified during the EBS. Active septic systems are located at the general's quarters (Building 234A), the drinking water reservoir building (Building 235A), and the guest house (Building 235B). The septic system at Building 234A was previously used also to treat sewage from the former bachelor officers' quarters trailers, since removed.

Storm water discharges from MOTBY are permitted under a general NJPDES permit. In accordance with this permit, MOTBY maintains its operations according to its Stormwater Pollution Prevention Plan (SPPP).

3.2.8 Oil/Water Separators

MOTBY reportedly conducted a "stormwater discharge and sewage pre-treatment investigation in 1993." As a result, five oil/water separators were identified which were used to treat wash rack discharges at Buildings 44A, 45, 72A, 91F, and 101. Of these, only the oil/water separators at Buildings 45 and 72A are active. Two additional oil/water separators were identified during the survey: one active at the boiler plant ASTs and one inactive at the former Building 106.

MOTBY's SPPP identifies the oil/water separator at the boiler plant ASTs as a source of non-stormwater discharge to the storm sewer. With the exception of the oil/water separator at the boiler plant ASTs, it could not be determined to which sewer system (storm or sanitary) the oil/water separators are plumbed.

3.2.9 Pollution Prevention Plan

Provisions for pollution prevention are required under Title 40 of RCRA, Executive Order 12856, and AR600-1, Chapter 6. Currently, MOTBY does not have a pollution prevention plan in place. However, PRC, Inc., under contract to the Baltimore District of the U.S. Army Corp of Engineers, is in the process of developing the plan which is expected to be completed by the end of the fiscal year. The plan will provide for source reduction measures through hazardous substance product substitution and conservation, operational changes, and implementation of more efficient work practices.

3.2.10 Radioactive Substances

MOTBY has no Nuclear Regulatory Commission (NRC) licenses or DoA authorization or permit to receive, store, or transfer radioactive materials. Instead, radioactive materials and commodities are received, stored, and shipped under the NRC licenses and DoA authorization assigned to radioactive commodity managers within the Army.

The only ionizing radiation sources permanently located at MOTBY at present are the medical X-ray machine in the Military Sealift Command (MSC) dispensary in Building 42 and the medical X-ray facility at the United States Army Health Clinic (USAHC) in Building 52B. Medical operating personnel who use the apparatus wear film badges which are monitored by Fort Monmouth personnel.

Several other locations at MOTBY were also identified in 1991 as storing radioactive commodities. According to the 1991 Hazardous Waste Management Plan, material containing beta/gamma radiation were stored on the second floor of Building 45, with amounts varying each month.

Temporary storage of radioactive commodities occurs in Building 23 and the western part of Building 73. USAEHA (now the United States Army Center for Health Promotion and Preventative Medicine (USACHPPM)) has conducted periodic radiation protection surveys of both the USAHC X-ray unit and the two temporary storage areas since at least 1976. Various radioactive material are shipped through MOTBY, including Type A quantities within transport groups I, II, and III, and they are generally received and stored 1 to 120 days before shipment. A dedicated room on the north side of Building 23 has been used to store radioactive packages prior to shipment. Security items containing radioactivity are stored in a dedicated, segregated area in the secured portion of Building 73. Both areas are presently surveyed by the Safety Office of the 1301st Port Command. With two exceptions, USAEHA surveys of these two areas have generally found no health hazards resulting from transportation of ionizing radiation sources through MOTBY.

Currently, the MOTBY Radiation Control Committee, which is part of the Occupational Safety and Health Committee, reviews and proposes controls for radiation sources and handling at MOTBY. The committee reviews proposals for the use of radiation sources and provides recommendation to the base command to establish control of potential health hazards resulting from procurement, possession, storage, transportation, and use of radioactive materials and equipment.

3.2.11 Lead-Based Paint

There has been no comprehensive survey for lead-based paint (LBP) at MOTBY. However, limited sampling of painted surfaces and analysis for LBP has been conducted at select facilities. Because most of the buildings at MOTBY were constructed prior to 1978, most buildings probably contain lead-based paint, and plans for a comprehensive lead-based paint survey are under development. All buildings on the facility are to be surveyed.

3.2.12 Medical Waste

MOTBY generates small quantities of medical waste through the operation of the MSC Dispensary in Building 42 and the USAHC in Building 52B. The infectious waste generated is composed primarily of bandages, dressings, and tongue depressors, in addition to needles and syringes. In both locations, waste is collected in specially marked containers for storage until it is taken off site for disposal.

3.2.13 Air Emissions and Permits

During normal operations, MOTBY is required to comply with all federal, state, interstate, and local air pollution regulations as per AR200-1. Applicable regulations include Titles I, III, and V of the CAA of 1977, as amended in 1990 Titles XXVI, IXXXX, and LIV of the New Jersey Air Pollution Control Laws, and the regulations promulgated by the Hudson Regional Health Commission.

Title V of the Clean Air Act Amendments of 1990 was promulgated to provide an enforcement mechanism to the air quality regulations. It requires all major emissions sources to apply for an operating permit which encompasses the requirements of most of the other regulations in effect. Because MOTBY is considered a major emissions source, the facility has completed its draft Title V Permit Application and has submitted it for review.

The Title V Operating Permit material prepared by MOTBY was deemed administratively complete so the package was submitted to NJDEP on February 15, 1997 for the Technical Review Process, which should be completed by mid-May 1997.

Potential and actual emissions at MOTBY are calculated from the emissions of equipment and activities that occur at the facility. Sources of emissions at MOTBY include boilers, generators, painting operations, printing operations, photographic developing operations, woodworking operations, fuel storage and distribution, sewage treatment, firefighter training, pesticide application, as well as the landfill and the firing range. Of these, the most significant sources of emissions are the boilers and the gasoline station.

Currently, at least four boilers at MOTBY are not in compliance. These include the three operable boilers at the boiler plant and one boiler at Goldsborough Village. The boiler plant boilers will require emission control equipment, and the boilers at Goldsborough Village is scheduled to be retrofitted for gas. MOTBY is retrofitting its boilers at its main boiler plant and modifying remote boilers for natural gas in order to comply with its Title V operating permit, which is currently under review. Baseline information for an Administrative Consent Order has been submitted as part of the process of bringing the boiler plant into compliance. This material will be added to the Title V permit in order to buy air credits for boilers 3, 4, and 5. State-of-the-art controls are to be added to Boiler 5 in 1997 so that all boilers can achieve compliance in mid-1997.

3.2.14 Pesticide Management

Pest management activities at MOTBY, past and present, have included pest surveillance, insect pest control in buildings, insect pest control base-wide, rodent control inside and outside buildings, and vegetation control around buildings, railways, and dock areas. MOTBY has several unique features that have mandated particular attention to pest control over the history of the base. First, the base's mission has been to transfer material to and from ships from around the world. This material has included large amounts of foodstuffs, clothing, and other material subject to infestation and degradation by pests. Second, the base is situated adjacent to tidal flats in Upper New York Harbor that are periodically dredged, which creates excellent conditions for the breeding and proliferation of mosquitoes and other insects. Third, the extensive use of roadways, docks, and railways on the base requires extensive weed control for safety and fire prevention.

Currently, pest management responsibilities at MOTBY are shared by the Installation Medical Authority, Directorate of Engineering and Housing (DEH), PX, Fire Department, and Food Service Facilities. The Preventive Medicine Service from the Fort Monmouth

Medical Department Activity (MEDDAC) provides mosquito control to MOTBY. Veterinary Services, also from Fort Monmouth MEDDAC, performs inspections of food shipments delivered to nonappropriated fund activities and monthly retail food sanitary inspections at the PX. The Pest Management Coordinator in the DEH has the supervisory role in the implementation of the Pest Management Plan and can act as an alternate pest controller. The current pest controller is an EPA registered contractor, AKF Pest Control of Patterson, New Jersey, and is under the supervision of the DEH. MOTBY's Pesticide Management Plan is currently under revision by the facility's Department of Public Works (DPW).

3.2.15 Unexploded Ordnance

Operations at MOTBY that included: ammunition shipments and submarine net storage during World War II under the Bureau of Ordnance; operation of the NSD Bayonne as the primary distribution point for ordnance for the East Coast in the post-war period; and periodic shipments of ordnance material throughout the base's history, including the buildup to the 1991 Gulf War. In addition, Building 72A has been used as a small-arms indoor firing range from 1948 to the present. Reportedly, there have been no munitions demolition or demilitarization operations at MOTBY and no use, storage, or transfer of chemical or biological weapons.

3.3 Status of Natural, Historical and Cultural Resources Programs

A summary of the natural, historical, and cultural resources programs at MOTBY are to be described in the EIS to be prepared as part of the NEPA process. These resources are currently being evaluated by two contractors. A draft report on the cultural and historical resources at MOTBY is currently undergoing an internal review prior to being submitted to the New Jersey State Historical Preservation Offices for their review in June 1997. A final report is anticipated in late 1997. Development of the NEPA schedule is linked to the presentation of the reuse concept plan to MOTBY in October 1997. This process was initiated on May 2, 1996 and typically requires 18 to 24 months for completion. After completion of the EIS, this section will be updated and may include the status of programs for:

- Vegetation;
- Wildlife;
- Wetlands and floodplains;
- Designated preservation areas;
- Rare, threatened, and endangered species; and

- Historical and cultural resources.

Thus far, the main resource consideration identified for evaluation consists of two on-site wetland areas. It is not yet clear whether a conservation management plan will be required for the site.

3.4 Environmental Condition of Property

In October 1992, Public Law 102-426, CERFA amended Section 120(h) of CERCLA. CERFA established new requirements with respect to contamination assessment, cleanup, and regulatory agency notification and concurrence for federal facility closure and property transfer. The primary objective of CERFA is for federal agencies to expeditiously identify individual parcels of real property offering the greatest opportunity for immediate reuse and development. As a result, CERFA requires the federal government, before termination of federal activities on its property, to determine the environmental condition of real property before the property is transferred. Once the condition has been determined, property transfer can proceed for properties that have no residual environmental concerns that require further action.

Properties with no history of storage, release, or disposal of hazardous substances or petroleum products, or migration of contamination from adjacent areas can be identified as "CERFA uncontaminated property," and are not subject to the notification requirements contained in CERFA. Properties where storage, release, or disposal of hazardous substances or petroleum products has occurred, but where all required remedial actions have been conducted, can also be transferred but are subject to the notification provisions contained in CERFA.

CERFA categorizes real property in regards to the environmental conditions relevant to a particular parcel of land. Categories are determined by the presence or absence of storage, release, or disposal of hazardous substances or petroleum products, and the potential for migration of contamination from adjacent areas. Further delineations are made concerning the level of information, the concentrations of released substances, the amount and duration of storage of hazardous substances or petroleum products, and the status of remedial or removal activities.

In the fall of 1993, DoD issued the BRAC Cleanup Plan Guidebook which established the seven categories used for categorizing real property at closing facilities. The categorization scheme, presented in Table 3-12 provided the basis for the categorization developed in the draft final EBS.

DoD guidance regarding CERFA categorization for the BRAC process has previously included petroleum products as an item of concern equivalent to other CERCLA-defined hazardous substances. In the fall of 1995, DoD made modifications to the CERFA categorization guidance for use in the preparation of BRAC environmental baseline surveys. These modifications remove petroleum products from consideration as a hazardous material for the purposes of assigning CERFA categories. However, these modifications have not been used for the assessment of parcels at MOTBY because the State of New Jersey considers petroleum a hazardous substance. Therefore, petroleum products were considered as hazardous material during CERFA categorization.

3.4.1 Official CERFA Categorization

When evaluating MOTBY parcels for CERFA categorization, a two-phase approach was used. First, an inventory of potential site-specific (i.e., within each parcel) and facility-wide environmental concerns was developed, and each concern was assigned a CERFA category. Second, an environmental condition of property map was created, identifying a CERFA category for each study area.

Three unevaluated facility-wide environmental concerns were identified at MOTBY. As shown in Table 3-12, areas that are unevaluated or require additional evaluation are to be assigned CERFA category 7. Because these three concerns may impact the entire facility, all MOTBY parcels were classified as category 7 in the draft final EBS. The three facility-wide concerns include:

- **Hydraulic Fill:** Dredged material from New York Harbor was used to develop the peninsula and the amount of contamination that can be attributed to the fill material is not known.
- **Discharges To The Sewer Systems:** Documented discharges to the sanitary system occurred at several locations, including photo laboratories, vehicle maintenance areas, and oil/water separators.
- **Generalized Pollution of New York Harbor:** New York Harbor water and sediments have been impacted by historical and ongoing industrial activity. The impact of contaminant migration from New York Harbor on the MOTBY peninsula has not been characterized.

Through the BCT process, general consensus has been achieved on the hydraulic fill issue at MOTBY. Namely, with the exception of a small portion of land on the eastern edge of the site, it can be clearly documented that MOTBY is made up of fill material. Therefore, a

DER will be issued for the entire property. In individual cases for which unrestricted use is desirable, specific areas would be investigated further.

The other two issues will be addressed under the remaining RI. A sewer survey is planned, as is sediment sampling in New York Harbor.

3.4.2 Secondary CERFA Categorization

In order to provide site-specific information of the environmental condition at MOTBY (i.e., independent of facility-wide concerns), a secondary category was assigned to each parcel. When facility-wide concerns are resolved, parcels will default to these secondary categories. Figure 3-5 presents the environmental condition of property based on secondary categorization of parcels.

A listing of the parcels which fall into each of the secondary CERFA categories 1 through 7 are provided in Tables 3-13 through 3-19, respectively. For each parcel, the tables provide the parcel acreage, the facilities it contains, and the basis for the secondary categorization.

In future versions of the BCP, the environmental condition of property map will be updated as a result of changes to the parcels. These changes may result from, but are not limited to, the following: investigatory information, remedial actions, and modifications made to parcel boundaries.

3.4.3 Suitability of Installation Property for Transfer by Deed

According to CERFA and DoD guidance, parcels which have been assigned one of the first four categories are eligible for transfer subject to the notification, covenant, and access requirements stipulated in Section 120(h) of CERCLA. Based on the parcel-specific categorizations, several properties may be eligible for transfer once the facility-wide concerns are addressed (see Figure 3-6).

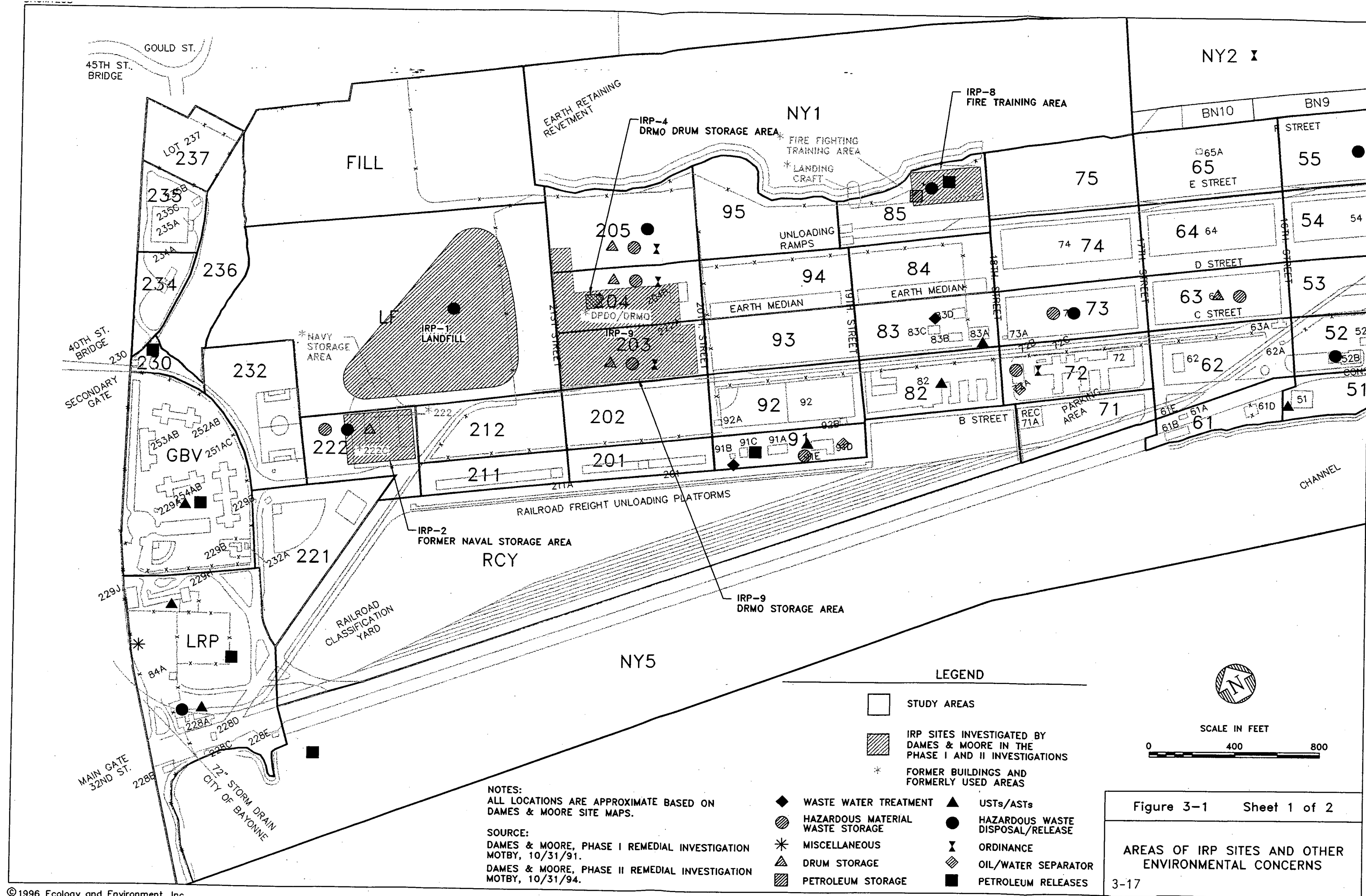
3.5 Status of Community Involvement

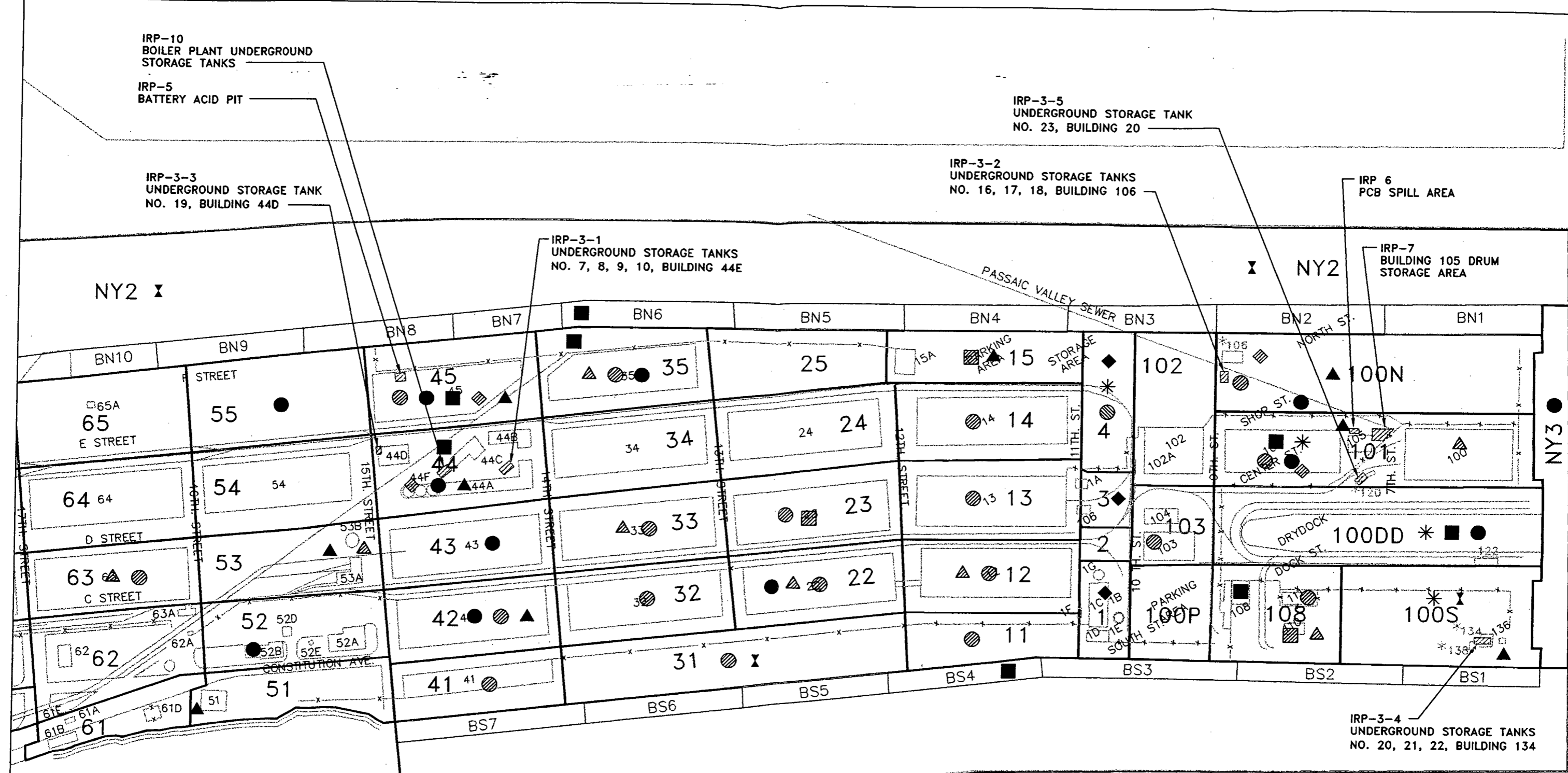
As part of the BRAC process, MOTBY is in the process of establishing a comprehensive community relations program. Community relations actions which have been pursued to date include:

- *Preparation of the EIS.* The Army has obtained a contractor to prepare the MOTBY EIS through the U.S. Army Corp of Engineers, Mobile District. Upon completion of the Draft EIS, the public will

invited to attend a hearing held to comment on the document. Public comments will be incorporated into the Final EIS.

- *Restoration Advisory Board.* The installation has completed the process of establishing a RAB to provide for public involvement and input. The RAB currently meets quarterly; however, more frequent meetings have been held during review of the EBS.
- *Press Releases.* The MOTBY Public Affairs Office has coordinated with the EMO and the BEC to prepare news releases about upcoming meetings and activities at the installation. The involvement and role of the Public Affairs Office will expand as restoration activities at MOTBY begin.
- *Community Relations Plan.* The BCT and Project Team will assist in the development of a comprehensive LR Plan as part of the RI/FS. The plan will establish procedures for effective communication on environmental issues between the community and the Army.





IRP-10
BOILER PLANT UNDERGROUND
STORAGE TANKS

IRP-5
BATTERY ACID PIT

IRP-3-3
UNDERGROUND STORAGE TANK
NO. 19, BUILDING 44D

IRP-3-1
UNDERGROUND STORAGE TANKS
NO. 7, 8, 9, 10, BUILDING 44E

IRP-3-2
UNDERGROUND STORAGE TANKS
NO. 16, 17, 18, BUILDING 106

IRP-3-5
UNDERGROUND STORAGE TANK
NO. 23, BUILDING 20

IRP 6
PCB SPILL AREA

IRP-7
BUILDING 105 DRUM
STORAGE AREA

IRP-3-4
UNDERGROUND STORAGE TANKS
NO. 20, 21, 22, BUILDING 134

LEGEND

- STUDY AREAS
- ▨ IRP SITES INVESTIGATED BY DAMES & MOORE IN THE PHASE I AND II INVESTIGATIONS
- * FORMER BUILDINGS AND FORMERLY USED AREAS
- ◆ WASTE WATER TREATMENT
- HAZARDOUS MATERIAL WASTE STORAGE
- * MISCELLANEOUS
- ▲ DRUM STORAGE
- ▨ PETROLEUM STORAGE
- ▲ USTs/ASTs
- HAZARDOUS WASTE DISPOSAL/RELEASE
- ✕ ORDINANCE
- ▨ OIL/WATER SEPARATOR
- PETROLEUM RELEASES



SCALE IN FEET



NOTES:
ALL LOCATIONS ARE APPROXIMATE BASED ON
DAMES & MOORE SITE MAPS.

SOURCE:
DAMES & MOORE, PHASE I REMEDIAL INVESTIGATION
MOTBY, 10/31/91.
DAMES & MOORE, PHASE II REMEDIAL INVESTIGATION
MOTBY, 10/31/94.

Figure 3-1 Sheet 2 of 2

AREAS OF IRP SITES AND OTHER ENVIRONMENTAL CONCERNS

3-19

Figure 3-2
VEGETATION/HABITAT TYPES AT MOTBY

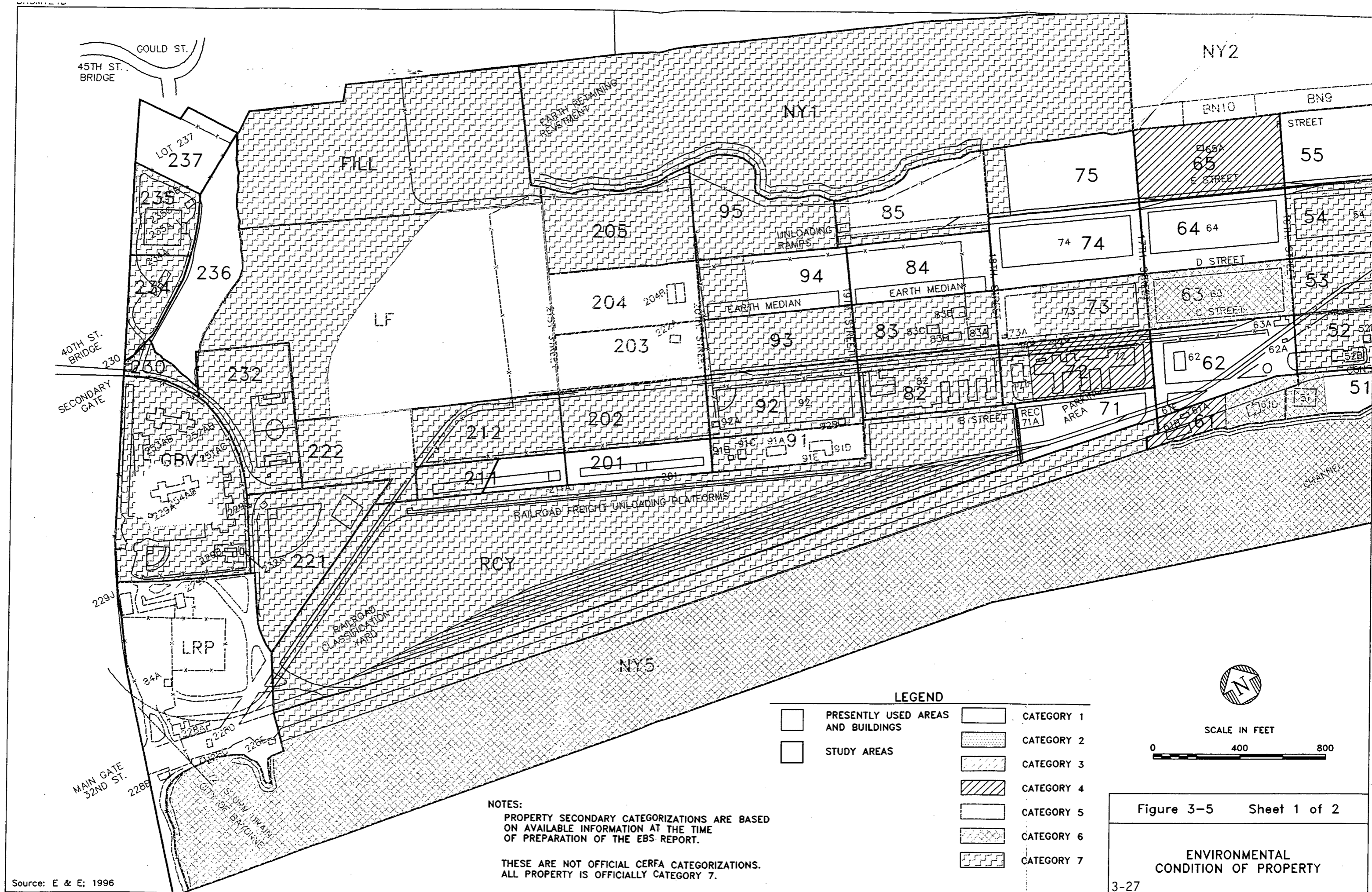
Animal habitats and types of vegetation in the vicinity of MOTBY will be identified as part of a natural resources survey. Once identified, the information will be graphically represented in this table in future versions of the BCP.

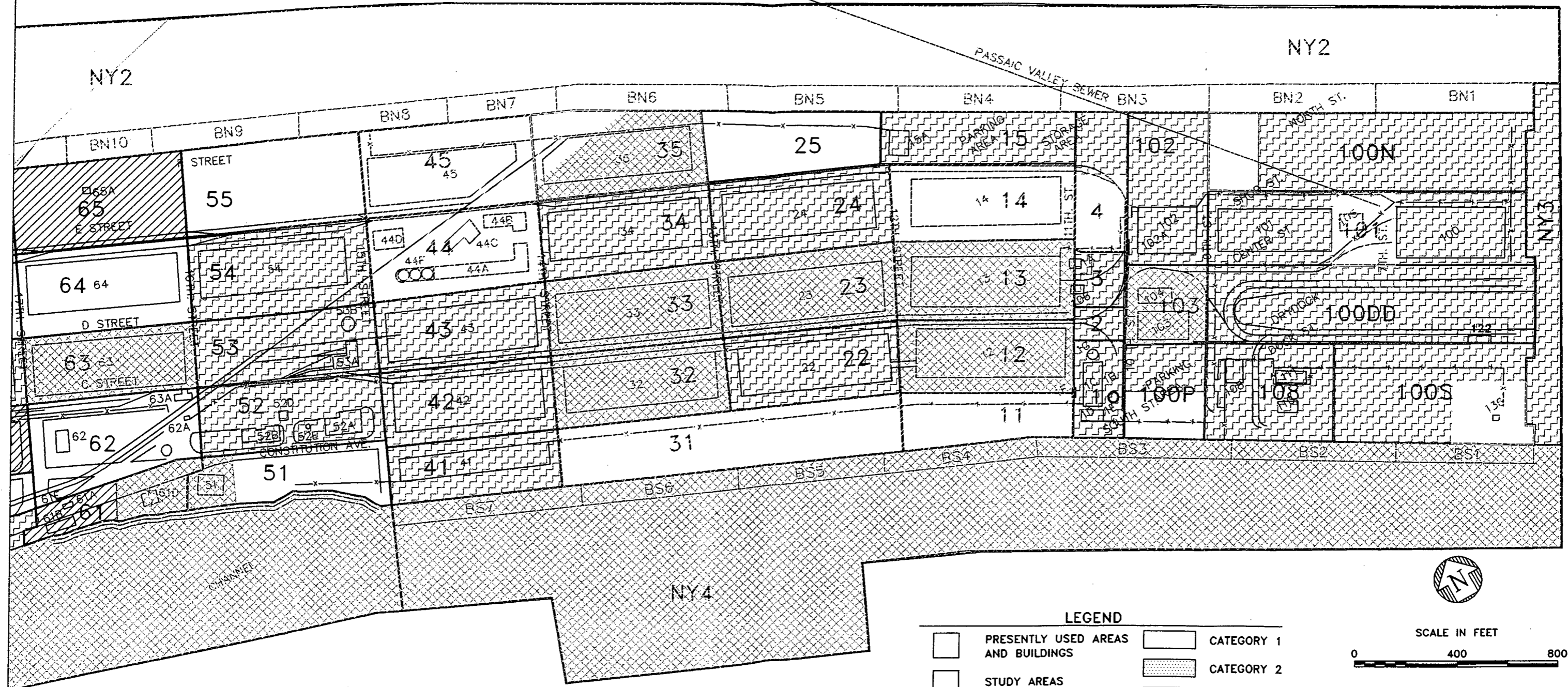
Figure 3-3
DISTRIBUTION OF WETLANDS IN THE VICINITY OF MOTBY

The distribution and location of wetlands in the vicinity of MOTBY will be presented graphically in future versions of the BCP.

Figure 3-4
DESIGNATED PRESERVATION AREAS IN THE VICINITY OF MOTBY

At this time preservation areas in the vicinity of MOTBY have not been identified. This figure will be used in subsequent versions of the BCP to identify any such preservation areas identified through the imminent historical, natural, and cultural resources surveys.





NOTES:

PROPERTY SECONDARY CATEGORIZATIONS ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF PREPARATION OF THE EBS REPORT.

THESE ARE NOT OFFICIAL CERFA CATEGORIZATIONS.
ALL PROPERTY IS OFFICIALLY CATEGORY 7.

Source: E & E; 1996



LEGEND

- PRESENTLY USED AREAS AND BUILDINGS
- STUDY AREAS
- PROPERTIES OF CERFA CATEGORIES 1-4

N

SCALE IN FEET

0 400 800

NOTES:

PROPERTY SECONDARY CATEGORIZATIONS ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF PREPARATION OF THE EBS REPORT.

THESE ARE NOT OFFICIAL CERFA CATEGORIZATIONS. ALL PROPERTY IS OFFICIALLY UNSUITABLE FOR TRANSFER.

Figure 3-6 Sheet 2 of 2

PROPERTY
SUITABLE FOR TRANSFER

3-33

Table 3-1

SUMMARY OF IRP REMEDIAL INVESTIGATION SITES

Site Number	Site Name	Description	Material of Concern	Date of Operation	Status	Regulatory Mechanism	Category
IRP-1	Landfill	Landfill disposal included food wastes, construction debris, equipment, pesticide containers, waste oils and grease, burned wood and paper, and other sanitary wastes.	Waste oil, metals, pesticides, PCBs	1940s - 1969	RI investigated groundwater, surface water, sediment and soils. Limited PAHs and metals found in groundwater. DDT, PCBs, metals, and PAHs found in surface water and sediments. PAHs found in soils. NJDEP does not yet concur with RI characterization and delineation.		5
IRP-2	Former Navy Storage Area	Lot 222 used for the storage of drums containing oils and solvents, disposal of liquids, and incineration of flammable materials.	Waste oils, solvents	1940s - 1950s	No drums remain on site. RI investigated groundwater and soil. Groundwater sampling indicated some metals and dieldrin above Class II-A criteria. Soil sampling indicated elevated metals, PAHs, pesticides, and PCBs.		5
IRP-3-1	Former Gas Station USTs at 44E	This area consisted of four USTs at the former gasoline station at 44E.	Gasoline, diesel	Unknown - 1992	The RI investigation consisted only of tank contents sampling and groundwater sampling of the 44 Area (see Site 10 for a description). The tanks at Area 44E were removed in 1992. See Table 3-8 for a description of the removal and subsequent investigation.		5
IRP-3-2	Former Gas Station USTs at Bldg. 106	This area consisted of three USTs at the former Garage at Bldg. 106.	Gasoline, diesel	Unknown - 1992	The RI investigation of these tanks consisted only of tank contents sampling. The tanks at former building 106 were removed in 1992. See Table 3-8 for a description of the removal and subsequent investigation.		5
IRP-3-3	Bldg. 44D UST	This area consisted of one UST at Bldg. 44D.	Waste oil	Unknown - 1992	The RI investigation of this tank consisted only of tank contents sampling and groundwater sampling of the 44 Area (See site 10 for a description). The tank at Area 44D was removed in 1992. See Table 3-8 for a description of the removal and subsequent investigation.		?

Table 3-1

SUMMARY OF IRP REMEDIAL INVESTIGATION SITES

Site Number	Site Name	Description	Material of Concern	Date of Operation	Status	Regulatory Mechanism	Category
IRP-3-4	Former Area 134 USTs	This area consisted of three USTs at the former Area 134.	Gasoline	Unknown - 1992	The RI investigation of these tanks consisted only of tank contents sampling. The tanks at 134 were removed in 1992. See Table 3-8 for a description of the removal and subsequent investigation.		5
IRP-3-5	Former Bldg. 120 UST	This area consisted of one UST at former Bldg. 120.	Propane	Unknown - 1992	During the Phase I RI, the valve fill line leading from the propane tank was sampled for hydrocarbons using a Draeger tube. TPHC was found at a concentration greater than 2500 ppm. This tank was removed in 1992. No remedial sampling was conducted.		1
IRP-4	DRMO Drum Storage Area	The DRMO Drum Storage Area in 204 was a paved, 25 by 50-foot area designated as a Hazardous Waste Storage Facility under a 1981 RCRA Part A permit application.	Waste oil, solvents, pesticides, PCBs	Unknown - 1991	DRMO use ended in 1991 and all material removed. RI investigated soil in drum pad area. Evidence of waste oil contamination was indicated by soil sampling results where elevated levels of PAHs and TPHC were detected. BNAs were found in one sample above residential criteria. Also see Site 9.		5
IRP-5	Battery Acid Pit	The battery acid pit in Building 45 was used from the 1940s through the 1970s for the neutralization of approximately 60 lead-acid vehicle batteries per year.	Sulfuric acid, lead	1940s - 1970s	Pit use discontinued around 1980, and pit plugged with a concrete cap. RI investigated subsurface soil. Samples adjacent and downgradient of the pit did not reveal any contamination but sample taken directly below the concrete plug indicated elevated lead above NJDEP non-residential standards.		5

Table 3-1
SUMMARY OF IRP REMEDIAL INVESTIGATION SITES

Site Number	Site Name	Description	Material of Concern	Date of Operation	Status	Regulatory Mechanism	Category
IRP-6	PCB Spill Area	In 1983 a PCB transformer on the north side of Building 105 malfunctioned resulting in a release of PCB-oil to the eastern portion of the site.	PCBs	1983	Soil removed around the transformer pads in 1983-1984, disposed off-site and replaced with clean soil and covered with gravel. The four PCB transformers at the site were removed in by 1994. RI investigated soil. Sampling showed elevated PCB concentrations (up to 390 ppm) in the soil.		5
IRP-7	Building 105 Drum Storage Area	A former drum storage area on the northeast corner of the Building 105 contained drums of waste oil and other liquid wastes with some disposal to soil.	Waste oil, solvents, other liquids	Unknown - 1987	Drums were removed in 1989. RI investigated surface and subsurface soil and found surface and subsurface PAH contamination. In 1992, approximately 32 tons of soil were removed from the site. A strong petroleum odor was noted by NJDEP during a subsequent 1993 site visit suggesting residual contamination may be present. In addition, no report for the removal has been located.		5
IRP-8	Fire Training Area	Lot 85 was used for fire training every several weeks during a 20-year period using ignition waste oil and other flammables. Also, a kerosene spill occurred in 1989. The landing craft, waste oil tanks, and concrete building were removed sometime prior to the RI.	Waste oil, kerosene, other flammable liquids	1952 - 1973, 1989	RI investigated soil around burning areas and found PAHs and hydrocarbons typical of petroleum mostly at concentrations below NJDEP residential standards (except for benzo(a)pyrene and TPHC).. 1996 USCG groundwater investigation indicated low concentrations of TPHC, lead and arsenic above NJDEP criteria. The kerosene spill and the former landing craft area have not been sampled.		5

Table 3-1

SUMMARY OF IRP REMEDIAL INVESTIGATION SITES

Site Number	Site Name	Description	Material of Concern	Date of Operation	Status	Regulatory Mechanism	Category
IRP-9	DRMO Storage Area	The DRMO Storage Area was formerly located in Lots 203 and 204, with a small portion of Lot 205 and was used to store a variety of material.	Waste oil, solvents, pesticides, PCBs	Unknown - 1991	DRMO activities ceased in 1991 and all material was removed. RI investigated soil and groundwater. Groundwater sampling indicated several elevated metals and chlorinated VOCs above NJDEP Class II-A criteria and TPHC at low concentrations. Elevated levels of VOCs, PAHs, pesticides, PCBs, and TPHC were detected in soil samples.		5
IRP-10	Boiler Plant USTs	This site consists of three fuel oil USTs located southwest of Building 44C, along the south side of Jersey Avenue. These tanks are still in place.	Fuel Oil	Unknown - 1990s	Groundwater samples were collected from 7 out of 8 wells in Area 44. One to two feet of petroleum product was found in well MW-4, adjacent to the 44C USTs. Chlorinated hydrocarbons associated with solvents were detected in most of the wells. Chlorobenzene was detected in MW-2 at 19 ppb which exceeded the NJDEP Class II-A criteria. The chloride criterion was exceeded at three wells. NJDEP does not yet concur with the RI characterization or delineation.		5

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
1, 3	1A 1C 1D 1G	Sewage Treatment Plant	STP-1A-1 STP-1C-1, 2 STP-1D-1 STP-1G-1	Yes	No	No	Discharges from photo labs ceased in mid-1980s. Some cross-connections may exist. Unknown date of last sludge removal. Outfall water monitored per NPDES permit.	To be determined.
4	N/A	Former Building 4 Pesticide/Hazardous Waste Storage	HMS-4-1 HWS-4-1	Yes	No	No	No record of investigation has been located with respect to pesticide storage. Plans were made in 1985 to clean up Building 4; no details located. Building 4 demolished in 1987. After demolition, the lot was repaved with asphalt. Unknown date of waste removal.	To be determined.
4	4	Sandblasting Residue Disposal	MISC-4-1	Yes	No	No	Sandblasting residue observed disposed in this area in January 1996.	To be determined.
4	4	Cross Connection	STP-4-1	Yes	No	No	Cross-connection from storm drain #19 to sanitary manhole #9 identified in 1993. Plans made to plug cross-connection.	Need to confirm that cross-connection was plugged.
4	4	Former Aboveground Preservation Compound Tank	HMS-4-2	Yes	No	No	Preservation tank possibly used for cleaning and preserving submarine nets in 1940s or 1950s.	To be determined.
11	11	Former Building 11 Pesticide and PCB Storage	HMS-11-1	Yes	No	No	Pesticide storage ended in 1980. Identified PCB wastes were eventually moved to former hazardous waste temporary storage at Building 14 prior to off-site disposal. Building 11 was demolished in 1995.	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
12	12	Building 12 Former Pesticide Storage	HMS-12-1	Yes	No	No	Pesticides were stored in Building 12 during undetermined period prior to 1980. Pesticides removed at an unknown date.	Location of former pesticide storage is unknown.
12, 22	12, 22	Former Outside Drum Storage Area Between Bldg. 12 and 22	DS-12-1 HWS-12-1 HWS-22-2	Yes	No	No	The drums were eventually moved to Building 14 for characterization prior to off-site disposal. At the time of the EBS survey, scrap metal and other debris were observed within this area.	To be determined.
13	13	Building 13 Former Outside PCB Drum Storage	HWS-13-1	Yes	No	No	Drums of PCB oil and equipment were removed at an unknown date prior to 1990.	To be determined.
14	14	Building 14 Former Hazardous Waste Storage Area	HWS-14-1	Yes	No	Yes	All wastes removed from Bldg. 14 by 1992. Building decontaminated in 1992-1993 including steam cleaning these areas. Wipe samples were obtained to confirm decontamination.	To be determined.
15	15A	Building 15 Former Motor Repair Shop	PS-15A-1	Yes	No	No	Building 15A was used as a motor repair shop from 1972 to 1982. Stained areas were apparent on the east and west sides of the building. Oil also probably stored/spilled inside and outside building.	To be determined.

3-40

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
15	15A	Former UST	UT-15A-1	Yes	No	No	1500 gal. #2 Fuel Oil UST for heating at Building 15A. The only reference for this tank is unapproved plans; therefore, this tank may have never existed. Confirmation of the construction of this tank was not obtained.	Tank existence needs to be confirmed, prior to any future work.
15	15B	Former UST	UT-15B-1	Yes	No	No	1500 gal. UST possibly used for refueling. Since the only reference for this tank is unapproved plans, this tank may never have existed. No investigation of the area has been reported.	Tank existence needs to be confirmed, prior to any future work.
22	22	Former FAC Microfilm Processing Waste Discharges to Sanitary Sewer at Bldg. 22	HWD-22-1	Yes	No	No	Discharge at the FAC microfilm lab (Bldg. 22) was ordered to cease by Office of the Facilities Engineer in 1984. A silver recovery unit was installed sometime after 1984. The SRU was operating at the time of survey. Silver accumulates in a 5-gallon container and is removed for disposal through EMO on demand.	To be determined.
23	23	Building 23 Hazardous Materials Storage Area	HMS-23-1 HMS-23-2 PS-23-1	Yes	No	No	Building 23 has been used since 1943 to store a great variety of hazardous material. Building upgraded in 1989 based on regulations concerning hazardous materials storage.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
31	31	Former Building 31 Pesticide Storage	HMS-31-1 HWS-31-1 HWS-31-2	Yes	No	No	Pesticides were removed from Building 31 in 1983. The building was demolished in approximately 1994-1995.	To be determined.
31	31	Former Building 31 Explosives Storage	ORD-31-1	Yes	No	No	Storage of explosive material for transfer to Britain during the early years of World War II (1939 - 1941) including 810 drums of "nitration toluol" removed in 1941.	To be determined.
32	32	Building 32 Former Rust Removal and Corrosion Prevention Rooms	HMS-32-1 HWS-32-1	Yes	No	No	During the January 1996 EBS survey, a portable dip tank was observed in the former corrosion prevention room, containing what is expected to be residual corrosion prevention material (preservation compounds).	To be determined.
32	32	Building 32 Former Waste Drum Storage	HWS-32-2	Yes	No	No	Drums recommended for removal in 1982. Unknown disposition.	To be determined.
33	33	Building 33 Former Hazardous Material Storage	DS-33-1 HMS-33-1	Yes	No	No	The building was used as a Paint & Oil Storehouse from 1964 to 1972 for the temporary storage of materials, including paint and oil, prior to shipment.	To be determined.

3-42

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
35	35	Building 35 Former Cold Storage Facility	DS-35-1 HMS-35-1 HMS-35-2 HR-35-1 HWS-35-1 HWS-35-2	Yes	No	No	Operation of the Cold Storage Facility ceased in approximately 1992. Large amounts of waste oil generated and stored at facility at times. Ammonia was removed from the coolant system approximately 2 years ago; hazwaste was recycled through a removal contractor.	To be determined.
41	41	Building 41 Former Acid and Freon Storage	HMS-41-1	Yes	No	No	Battery acid and freon apparently removed sometime before 1987, no leaks mentioned.	Former location needs to be identified and removal confirmed.
42	42	Potential Photo Processing Waste Discharges to Sanitary Sewer at Building 42	HWD-42-2-1 HWD-42-4-1 HWD-42-4-2 HWD-42-5-1 HWD-42-6-1	Yes	No	No	Silver recovery units were installed at five photo labs (on 42-2, 42-4, 42-5, and 42-6) in the mid-1980s. The SRUs at the two labs on 42-4 were operating at the time of survey. Silver accumulates in a 5-gallon container and is removed for disposal through EMO on demand. Photo labs on 42-2, 42-5, and 42-6 are no longer in operation.	To be determined.
42	42-5	Former 5th Floor Army Printing Plant	HMS-42-5-1	Yes	No	No	Several small spills of Naphtha reported at the printing plant. The printing plant operation was moved to the 2nd floor in 1993.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
42	42-5	Former 5th Floor Solvent Dip Room	HMS-42-5-2	Yes	No	No	A "Dip Room" was installed on the 5th floor in 1945. The equipment included a cleaning tank containing Stoddard Solvent, associated conveyors, oil tank, and plastics machine. Unknown dates of use.	Location of activity has to be identified.
42	42-6	65 gal. Diesel AST for Emergency Generator	AT-42-6-1	Yes	No	No	The tank is located underneath an emergency generator on the sixth floor of Building 42 and is accessible through room 601-H. Tank area in poor condition at time of 1/96 EBS inspection.	To be determined.
43	43	Building 43 Battery Leakage in 1986	HR-43-1	Yes	No	No	Spill was contained with speedy-dry and batteries were moved to east side of building, then to Building 44D.	Location unknown, thus further investigation probably not feasible.
44	44A	Building 44A Former Oil/Water Separator	OWS-44A-1	Yes	No	No	A former wash rack in the northerly bay of Building 44A to a 1,000 gal waste/skim tank east of the OWS. At the time of the EBS survey, neither the wash rack nor the OWS were in use.	Destination of discharge and condition of OWS need to be determined.
44	44C	Boiler Plant ASTs	AT-44C-1 AT-44C-2	Yes	No	No	Two 2000 gal. ASTs, located on the south side of the building, may have been used to collect boiler blowdown, but this use is unconfirmed. The tanks appear to have residual spill material on them. These tanks are scheduled for removal.	Tank uses and contents needs to be identified prior to any further investigation.

3-44

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
44	44C	Boiler Plant PCB Oil Spills	HR-44C-1 HWD-44C-1	Yes	No	No	In 1980, PCB Oil from the Brooklyn Naval Yard was alleged to be moved to MOTBY for use as fuel. In 1988, a spill at 44C of supposed No. 6 Fuel Oil was found to contain just under 100 ppm of PCBs.	To be determined.
44	44C	Boiler Plant USTs	UT-44C-1 UT-44C-2 UT-44C-3 UT-44C-4	Yes	Yes	Yes	RI investigation identified petroleum product in the 44 area directly adjacent to these USTs. Determination of migration potential from these tanks is a subject of concern for NJDEP.	To be determined.
44	44C	Boiler Plant Fuel Oil Spills	PR-44C-3/14/84 PR-44C-2/9/91 PR-44C-4/6/91 PR-44C-10/24/91 PR-44C-3/19/92 PR-44C-7/26/93 PR-44C-1/12/94	Yes	No	No	Numerous fuel oil spills have occurred in and around the Boiler Plant including 7 documented spills of concern since 1984. Spill amounts ranged from minimal to 7000 gallons. Most spills had some kind of cleanup, but cleanup details were not located for all spills.	To be determined.
44	44D	Vehicle Maintenance Shop Former Waste Oil AST	AT-44D-5	Yes	No	No	This 300 gal. AST was reportedly used to store waste oil and was removed sometime after 1989.	To be determined.

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Table 3-2
SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
44	44E	Former Gas Station USTs	UT-44E-1 UT-44E-2 UT-44E-3 UT-44E-4	Yes	Yes	Yes	Under Closure Approval C92-2234, these four tanks were removed and investigated on 9/11/92. Results from soil samples collected from within the vicinity of all the tanks revealed lead and VOCs above cleanup standards. Approximately 150 cubic yards were removed. Groundwater was investigated by Dames & Moore.	The tank removal report noted that further investigation and/or clean-up was required. NJDEP does not concur at present with the RI conclusion that migration from the 44 area is not occurring.
45	45	Former TCE/Battery Acid Storage and Disposal	HMS-45-4 HWD-45-1 PR-45-5/19/90	Yes	Yes	No	TCE (parts cleaner) and battery acids were stored in the northeast corner of the vehicle maintenance shop. A battery acid pit was used for disposal of acid from approx. During RI investigation of acid pit, lead was found in soil directly under the pit, but not in downgradient samples.	TCE was not subject of RI investigation. Dames & Moore conclusion of no migration not yet approved by NJDEP.
45	45	Vehicle Maintenance Shop Wash Rack UST and OWS	OWS-45-1 UT-45-2	Yes	No	No	Floor drain discharges to an oil/water separator connected to a 550-gallon UST. The destination of treated water discharged from the OWS could not be confirmed. The UST has reportedly had water discharge problems. Reportedly, OWS scheduled for cleanout in 1995.	Drainage connections and OWS conditions need to be identified.
45	45	Paint Shop	HMS-45-3 HWS-45-3	Yes	No	No	Paints and solvents were stored in the spray paint booth, located in the southwestern portion of the vehicle maintenance shop.	To be determined.

3-46

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
51	51	Liberty Lodge UST	UT-51-1	Yes	No	Yes	This tank is scheduled to be removed and replaced. Although the tank has secondary containment, it has been the cause of two petroleum releases.	Tank may have been removed recently. Removal report should be reviewed prior to any further work.
52	52B	Potential X-Ray Film Processing Waste Discharges to Sanitary Sewer	HWD-52B-1	Yes	No	No	Prior to the mid-1980s, the X-Ray film processing laboratory at the Bldg. 52B Clinic may have discharged untreated processing waste to the sanitary sewer. No silver recovery unit has been noted at this location. Wastes are currently accumulated for disposal through the EMO.	To be determined.
53	53A	Former Fueling Area	TC-53A-1 TC-53A-2 UT-53A-1	Yes	No	No	Under Closure Approval C92-2233, the UST was removed in 1992. Soil sampling found low levels of BTEX, and VOCs, as well as TPHC. Approximately 60 cubic yards of soil was excavated. Tank cars were removed in 1994. 1995 reinvestigation found contamination to be more extensive than expected.	Tank removal report noted that the concentration and extent of contamination had not been determined and that further investigation and/or clean up, including a groundwater investigation, may be required.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
53	53A	Former Hazardous Material/Waste Storage	DS-53A-1	Yes	No	No	In the past, waste oil and possibly other auto fluids associated with various equipment operations was stored in drums in the northwest corner and along the south wall of Building 53A. At the time of the EBS survey, all drums had been removed from the building.	To be determined.
55	55	PCB Transformer Fluid Spill in 1991	HR-55-1	Yes	No	No	The spill was initially contained with an earth berm. Cleanup was contracted via EMO. The transformer was drained, fluid cleaned up, and contaminated soil removed. Sixteen drums of solids and 17 drums of liquids were removed.	To be determined.
63	63	Former DRMO Hazmat and Hazwaste Storage Area	DS-63-1 HMS-63-1 DS-63-1	Yes	No	No	Although many spill protection devices such as spill pallets were reportedly used in later years and spill cleanup was conducted, undocumented spills or leaks are possible. The DRMO operation moved to Dover, NJ in July, 1991 and the building was cleaned out at the time.	To be determined.

3-48

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
72	72A	Possible Dry Cleaner	HMS-72A-3	Yes	No	No	A dry cleaning facility was reportedly operating at Building 72A in 1989 when a SPCC plan was prepared. At that time, trichloroethylene was reported as stored. The period of use of the facility is undetermined.	Reference in 1989 SPCC plan needs to be reconfirmed to identify if dry cleaners was, in fact, in operation prior to any further investigation.
72	72A	Former Chemistry Lab	HMS-72A-2 HWS-72A-2	Yes	No	No	A chemistry lab operated at Building 72A from approximately 1961 to 1970. No specific details are available concerning the types of wastes generated at the lab.	To be determined.
72	72A	Indoor Firing Range	ORD-72A-1	Yes	No	Yes	Indoor firing range since 1948. A 1991 USAEHA Industrial Hygiene Study identified that users of the range were exposed to inorganic lead levels which, if not controlled, could present a definite health risk.	USAEHA made recommendations to improve deficiencies, which have not yet been implemented.
72	72A	Auto Crafts Shop Wash Rack	OWS-72A-1	Yes	No	No	The auto crafts shop wash rack discharges to a floor drain connected to an oil water separator, located south of Building 72A. The destination of treated water discharge from the OWS is unknown. The underground OWS vault was accessed during EBS survey and appeared unmaintained.	Drainage connections and OWS condition need to be identified.

Table 3-2
SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
73	73	Hazardous Material /Waste Storage	HMS-73-1 HWS-73-1 HR-73-1	Yes	No	No	Building 73 has been used as a storage area for dangerous goods shipped through MOTBY since at least the 1970s. Various types of materials are stored within the building including corrosives, gases, and flammables, among others. Also concerns regarding storage/leakage of deicing fluid in 1984	To be determined.
82	82	Present UST	UT-82-1	Yes	No	No	The location of this 1000 gal. No. 2 Fuel Oil tank is unknown. It was formerly identified as tank 26 and supplied fuel to the boiler in Building 82. The status of this tank is unknown.	Tank and status of the tank needs to identified, prior to any further work.
83	83A	POV Processing Area Activities and ASTS	AT-83A-1 AT-83A-2	Yes	No	No	Buildings 83C and 83 D have been used for POV processing including oiling/deoiling and fueling/defueling. Although several reported spills were cleaned up, undocumented spills or leaks are possible. In addition, several former ASTs were used for POV processing but their former location and status are unknown.	To be determined.
83	83E	Abandoned Sewage Pump Pit	STP-83E-1	Yes	No	No	Abandoned in 1993. No reported investigation or cleanup.	To be determined.

3-50

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
85	85	Former Navy Fire Fighting Training Area	PS-85C-1 HWD-85-1 PR-85-1989	Yes	Yes	Yes	The fire training area was in the northeast portion of lot 85. Site was investigated in Dames & Moore RI. The PAH and TPHC concentrations in soil were indicative of low level petroleum contamination. 1996 GW investigation by USCG found TPHC, lead and arsenic in unfiltered samples. The former landing craft area and a 1989 kerosene spill were apparently not sampled.	Dames & Moore RI conclusion is not yet approved by NJDEP.
RCY	201	Railroad Unloading Platforms	None	Yes	No	No	Railroad unloading operations involved a great variety of hazardous material and possibly some hazardous waste. There is a possibility of undocumented spills. Railroad classification yard renovated in early 1990s.	To be determined.
RCY	RCY	Railroad Classification Yard	None	Yes	No	No	Railroad cars have carried a great variety of hazardous material and possibly some hazardous waste. There is a possibility of undocumented spills. In addition, railroad locomotives may have had undocumented spills in the classification area, and railroad ballast may contain heavy metals. Railroad classification yard renovated in early 1990s	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
91	91B	Sewage Pump House	STP-91B-1	Yes	No	No	Building 91B is a sewage lift station. Residual concerns exist regarding historic discharges to sewer.	To be determined.
91	91C	Unknown AST	AT-91C-1	Yes	No	No	The use and location of this 275 gal. diesel AST tank are unknown. No information about this tank was available. This tank was not found during the EBS survey.	Tank location and status needs to be identified prior to any further work.
91	91C 91E	Former Paint Spray Building and Storage	HMS-91E-1	Yes	No	No	Building 91C was used as a paint spray building from 1957-1972. Paints that were used at Building 91C were stored at Building 91E.	To be determined.
91	91D	Former Gas Station USTs and spills	PR-91D-2/3/90 PR-91D-3/16/90 UT-91D-1 UT-91D-2 UT-91D-6	Yes	Yes	Yes	The removal of the PX gas station tanks occurred on 1/11/93 under Closure Approval C92-2878. 430 cubic yards of soil and 18,000 gallons of groundwater containing free product were removed. Subsequent soil samples revealed 160 to 19000 ppm TPHC, above clean up standards, and low levels of BTEX and VOCs.	The tank removal report concluded that the extent of free product had not been determined and recommended that monitoring wells be installed.
91	91F	Former Vehicle Car Wash	OWS-91F-1	Yes	No	No	Wash water from the former car wash drained via a floor drain to an oil water separator. Building 91F was demolished in 1995. OWS piping was removed, and the vault abandoned in-place.	To be determined.

3-52

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
93	93	Possible Former DRMO Storage Area	None	Yes	No	No	Unconfirmed information collected during the EBS indicated that the DPDO (the predecessor to DRMO) may have used Lot 93 for storage sometime in the early 1970s.	To be determined.
100N	N/A	Former Gas Station and Garage	OWS-106-1 UT-106-1 UT-106-2 UT-106-3 UT-106-4	Yes	Yes	Yes	Tanks removed on 9/2/92 under Closure Approval C92-2237. 80 to 90 cubic yards of soil were removed. Subsequent soil samples from the sides of the excavation at the water table revealed TPHC, lead, and low levels of VOCs below NJDEP clean up standards.	Although contaminant levels were below NJDEP clean up standards, the tank removal report noted that a groundwater investigation and/or clean up may be required.
100N	113	Former USTs	UT-113-1 UT-113-2	Yes	No	No	Two former USTs, one for gasoline and one for oil were located south of Building 113 near the corner of North and 5th Streets. No information confirming or refuting the existence of this tank was located.	Tank locations and existence need to be identified.
100N	113	Former Deperming Station Powerhouse	HMS-113-1	Yes	No	No	The building was used to house batteries for deperming operations. Based on floor plans, the building contained an "electrical pit", associated electrical lines, and transformer at the building, and possibly at times up to 120 submarine batteries.	Pier area was recently reconstructed with new concrete. Thus former building area may not be identifiable or assessable.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
100N	115	Former Paint Storage	HMS-115-1	Yes	No	No	Building 115 was used for paint storage from 1947 to 1951.	Pier area was recently reconstructed with new concrete. Thus former building area may not be identifiable or assessable.
100N	Test Area	Former Navy Fire Fighting Training Area North of Bldg. 101	HWD-100N-1	Yes	No	No	This fire training area was located in the lot north of Building 101 on the northeast corner of MOTBY. Training included ignition of a tanks of waste oil and suppression with foam. Building 106, directly west of the Test Area, was designated as a Fire Testing Building from 1969 to 1971.	To be determined.
100S	130	Former Carrier Mockup ASTs	AT-130-1 AT-130-2	Yes	No	No	Two 5000 gal. ASTs were located at the bottom of a concrete aircraft carrier mock-up known as structure 130. These tanks and the mock-up structure were removed in 1995.	To be determined.
100S	134	Former Carrier Mockup USTs	UT-134-1 UT-134-2 UT-134-3	Yes	Yes	Yes	For approximately 50 years, three USTs supplied gasoline and firefoam for fire fighting training in ship mock-ups. All of the tanks at area 134 were removed on 8/30/92 under Closure Approval C92-2239. During excavation, soil was found to be contaminated and 130 cubic yards removed. Soil sampling indicated no exceedences of NJDEP cleanup standards.	The tank removal report noted that although soil contamination was below NJDEP clean up standards, any contamination found at the water table may require further investigation and/or clean up.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
100S	138	Sandblasting Residue Disposal near Building 138	MISC-138-1	Yes	No	No	During the January 1996 EBS survey, small piles of black, fine-grained material similar to sandblasting residue was observed in an area northwest of former Building 130. Material has not been removed or tested.	To be determined.
100S	138	Former Potential Dynamite Storage	ORD-138-1	Yes	No	No	The carrier mockup area (including building 138) were previously used for the Naval Salvage Training School. One report referred to possible storage of dynamite in Building 138. Building 138 was removed in 1993.	To be determined.
100DD	122 132	Drydock	MISC-122-1 PR-122-3/7/92 HR-132-1	Yes	No	Yes	Historic ship repair activities may have resulted in contaminated sediments in and just outside the drydock. Sludge/ sediment testing to date done for disposal, not characterization purposes. Also concerns about the characterization of sludge in the pumpwell sump pump pit.	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
101	100	Building 100 Maintenance Areas	DS-100-2	Yes	No	No	The building had extensive machine and structural work operations for nearly 50 years including steel-working machinery recessed into berths (pits) sunk into the floor, and welding and grinding areas. Drums of oil stored on the south side of the building and probably throughout the working areas. No waste oil drum storage inside or outside Building 100 as of the EBS survey.	To be determined.
101	100	Compressor Fire and Oil Release	PR-100-11/1/92 MISC-100-1	Yes	No	No	Response to a compressor fire resulted in puncturing a hydraulic line and an estimated 20 to 30 gallons of runoff impacted the sanitary system. White residue was observed in 1996 in the area where this fire may have occurred. Remediation of the area was reportedly performed by Active Waste Technologies.	To be determined.
101	101	Vehicle Wash Rack	OWS-101-1	Yes	No	No	The vehicle wash rack drains via a floor drain to an oil water separator, located on the south side of Building 101. Separator reportedly no longer in use.	OWS drainage connection and status need to be identified.
101	101	Former Pesticide Storage Room	HMS-101-4	Yes	No	No	Storage practices were noted as inadequate in USAEHA studies from 1976 through 1980. Pesticide storage at this area ceased sometime prior to 1991	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
101	101	Former Acid Room	HMS-101-3	Yes	No	No	A 1942 floor plan notes the presence of an "Acid Room" in the north-central portion of Building 101. It is expected that acids were used as a corrosive cleaner for equipment or for metal tools, etc. The dates of use of this area are unknown.	Exact former location needs to be identified prior to any further work.
101	101	Building 101 Former East Side Transformer and Hazardous Waste Storage Areas	HR-101-1 HWS-101-3 HWS-105-3	Yes	No	No	Hazardous wastes, including leaking transformers, were stored on a concrete sidewalk-like pad immediately outside the building's east wall. Storage also occurred at locations further east, including in a Conex directly south of Building 105. Transformers removed in 1982. No wastes presently stored in this location.	To be determined.
101	105	Building 105 Former Hazardous Waste Storage Area and AST	DS-105-1 HWS-105-2 AT-105-1	Yes	Yes	No	Drums of liquid in poor condition stored east of 105. A former 1,000 gal. AST was north of 105. RI investigation found surface and subsurface PAH soil contamination above non-residential soil criteria. Soil removal conducted in 1992, but no removal report located. In 1993, a strong petroleum odor was noted by NJDEP during a site visit.	To be determined.

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Table 3-2
SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
101	105	Unidentified Drum	HWS-105-4	Yes	No	No	During the EBS survey, an unmarked, rusting drum of unknown contents was observed within a small room in the south end of Building 105. This drum was also observed during a 1990 hazardous waste survey. The cited drum remains in the building.	To be determined.
101	105	Former PCB Transformer and Spill Area	HR-105-1	Yes	Yes	No	In 1983, a transformer malfunctioned, causing a release of PCB oil. The spill was cleaned with absorbents and solvents and contaminated soil removed. Subsequent investigation in 1990s found PAHs and extremely elevated PCB concentrations (up to 390 ppm) in the soil. Non-PCB transformers are currently at the site.	To be determined.
103	103	Former Hazardous Material/Waste Storage	HMS-103-1 HWS-103-1 HWS-103-2	Yes	No	No	Building 103 was used for bulk storage of pesticides and herbicides from the late 1970s to the early 1980s and storage was in poor conditions. Pesticides removed in 1980. In the mid-1980s, four to ten drums were variously noted as stored inside and outside of the building, some of which contained PCB liquid.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
103	104	Former Building 104 Hazardous Storage	HWS-104-1 HWS-104-2	Yes	No	No	Drum storage in a field adjacent to Building 104 and on the south side of the building was noted in the mid-1980s. Drums were in poor conditions and contained thinner, POL, and unknowns. Drums were removed at an unknown date.	To be determined.
108	108	Former PCB Transformers PCB and Non-PCB Spills	PR-108-3/8/96	Yes	No	No	Building 108 used as a substation since 1942 with PCB transformers until 1992. Several documented spills were reported. A small 1996 spill of non-PCB oil was also reported. At least one small cleanup effort was conducted in the mid-1980s following a spill.	To be determined.
108	110	Former Paint and Oil Shop	HMS-110-1 PS-110-1	Yes	No	No	Building 110 operated as the Paint and Oil Shop from 1943 to 1993. Building 110 is no longer in use.	To be determined.
108	111	Hazardous Waste Accumulation Area (Less than 90 days)	HWS-111-1 DS-111-1	Yes	No	No	Building 111 has operated only since 1992.	Closure sampling will probably be required prior to transfer.
203 204 205	203 204 205	Lot 203, 204, 205 Former DRMO Storage Areas	DS-203,204,205-1 HMS-203,204,205-1 HWS-203,204,205-1 ORD-204-1	Yes	Yes	No	The DRMO area was investigated as RI Sites No. 4 and 9). Soil contamination indicated by elevated levels of arsenic, PAHs, VOCs, pesticides, PCBs, and TPHC. Groundwater sampling indicated several elevated metals and chlorinated VOCs and TPHC.	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
205 LF FILL	205	Former Burning Trenches, Burning Bin, and Tepee Incinerator	HWD-205-1	Yes	No	No	Burning operations in trenches, a burning bin and a tepee incinerator were carried out from the early 1940s until the late-1960s. Residue from the burning operations were landfilled at the on-site landfill. Not subject of RI, but some of the samples collected from the landfill may be in the general vicinity of this area.	To be determined.
LF	LF	Sanitary Landfill	HWD-LF-1	Yes	Yes	No	Landfill disposal included food wastes, construction debris, equipment, pesticide containers, waste oils and grease, burned wood and paper, and other sanitary wastes, up to 1969. RI investigation showed: PAHs, arsenic and lead in groundwater; metals, DDT, PAHs, and PCBs in surface water/sediment; and PAHs in soils.	Conclusions of Dames & Moore RI not yet approved by NJDEP. Landfill delineation and characterization may indicate potential concerns for adjacent study areas 232 and FILL.
222	222	Former Navy Storage Area and Incinerator	HWS-222-1 HR-222-1 HWD-222-1 DS-222-1	Yes	Yes	No	Used for storage, disposal and burning of waste oil and other liquids. Groundwater sampling indicated only arsenic, lead and dieldrin above Class II-A criteria, with detections of arsenic and lead only in one well in one of two rounds. Soil sampling indicated the presence of elevated concentrations of metals, PAHs, and PCBs.	Conclusions of Dames & RI not yet approved by NJDEP. NJDEP concern also exists regarding potential aerial fallout.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
LRP	228A	Potential Photo Processing Waste Discharges to Sanitary Sewer at 228A	HWD-228A-1	Yes	No	No	Prior to the mid-1980s, the film processing laboratory at the Bldg. 228A Arts and Craft Shop may have discharged untreated processing waste to the sanitary sewer. No silver recovery until has been noted at this location. Wastes are currently accumulated for disposal through the EMO.	To be determined.
LRP	228A	Removed UST	UT-228A-1	Yes	No	Yes	UST removed under Closure Number C92-2236. During excavation, contaminated groundwater was encountered and soil sampling results revealed 160 to 19,000 ppm TPHC, significantly above clean up standards. The former tank was noted to have several holes.	The tank removal report noted that a groundwater investigation and clean up might be required.
LRP	229H	Present UST	UT-229H-1	Yes	No	No	Construction details of this active tank are currently unidentified.	Tank construction details should be identified.
LRP	229H	Removed UST	UT-229H-2	Yes	No	Yes	This 2500 No.2 fuel oil tank is currently undergoing closure.	Tank removal report needs to be reviewed prior to making any further determinations.

Table 3-2
SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
LRP	229J	Removed UST	UT-229J-1	Yes	No	Yes	Closure of this tank is being managed by LJ Herbert Environmental Consulting Services. This tank was replaced by UT-229J-2. During excavation, subsurface soil contamination was discovered and reported to NJDEP.	Tank removal report should be reviewed prior to consideration of future work.
LRP	229J	Present UST	UT-229J-2	Yes	No	No	Construction details of this active tank are currently unidentified.	Tank construction details should be identified.
LRP	Main Gate Area	Possible Metal, VOC and Petroleum Contamination	MISC-LRP-1 PR-LRP-1987 PR-LRP-1989 PR-LRP-6/13/94	Yes	No	Yes	NJ DOT Highway 169 RI found metal waste and soil contamination directly adjacent to MOTBY and free product in groundwater samples. NJ Transit soil sampling found elevated metals in a subsurface layer of fill and groundwater at the LRP. Potential sources include nearby metal processing, fill, underground pipelines, sewer lines, road and railroads, USTs, and several petroleum spills.	To be determined.
GBV	N/A	Potential Migration Concerns from the 169 ROW	None	Yes	No	Yes	NJDOT Highway 169 RI found potential subsurface soil petroleum contamination in addition to lead and trichlorofluoromethane in groundwater directly off-site. Potential sources include road and railroad spills, underground pipelines, and USTs.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
GBV	254AB	Removed USTs and 1993 Spill	UT-254AB-1 UT-254AB-2 PR-254AB-5/14/93	Yes	No	Yes	Under Closure Approval C92-2232, the two USTs were removed on 5/4/93. Contaminated soil was observed to intersect groundwater. Soil deemed contaminated via field screening was removed. Residual soil contamination below clean up standards. A 1993 fuel oil spill released oil to surface soil and the storm sewer. Absorbent materials were used to contain the spill.	The tank removal report noted that a groundwater investigation and/or clean up may be required even though soil contamination was below clean up standards.
230	N/A	Contaminated Backfill at 40th Street Bridge and Potential Migration Concerns from Highway 169.	PR-230-4/11/95	Yes	No	Yes	Contaminated backfill reportedly used at the 40th Street exit. NJDOT Highway 169 RI found subsurface soil petroleum contamination and lead and trichlorofluoromethane in groundwater directly off-site. Potential sources include road and railroad spills, several underground pipelines, and USTs.	To be determined.
230	N/A	Potential Septic System	SPTC-230-1	Yes	No	No	A septic line may run from the 230 area into the 234 areas, according to facility maps. During a 1991 ROW investigation of Route 169, surficial seeps of reddish-brown water were observed to be running onto the 169 ROW from MOTBY in the general downgradient area. The septic system has not yet been located.	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
234	N/A	Potential Migration Concerns from the 169 ROW	None	Yes	No	Yes	NJDOT Highway 169 RI found potential subsurface soil petroleum contamination in addition to lead and trichlorofluoromethane in groundwater directly off-site. Potential sources include road and railroads, several underground pipelines, and USTs.	To be determined.
235	N/A	Potential Migration Concerns from the 169 ROW	None	Yes	No	Yes	NJDOT Highway 169 RI found potential subsurface soil petroleum contamination in addition to lead and trichlorofluoromethane in groundwater directly off-site. Potential sources include road and railroads, several underground pipelines, and USTs.	To be determined.
NY1	NY1	Northwest Shoreline	None	Yes	No	No	Migration of contaminants from the north berthing areas, New York Harbor, or investigation sites on the western part of the facility such as the DRMO lot and the landfill among others may have impacted the sediments along this shoreline. No investigation of the sediments or tidal waters in this area has been conducted.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
NY2	NY2	Empty Artillery Shells Observed off North Piers	ORD-NY2-1	Yes	No	No	During a 1987 NJDEP Inspection of MOTBY, approximately 50 to 100 empty artillery shells were observed on the north shoreline at an area where the bulkhead was severely deteriorated. No empty shells were observable during the 1/96 EBS Survey, but the area under the berths was not inspected.	North berth area has been recently reconstructed with new concrete. Area of former shells should be visually inspected to confirm removal.
NY2	NY2	North Berthing Areas (Berths N-1 through N-10), Spills and Historic Discharges	PR-BN6-10/24/75 PR-BN6-3/3/76 PR-BN6-12/6/77 PR-BN6-7/90 PR-BN6-7/10/90 PR-BN6-3/20/91 PR-BN6-4/10/91 PR-BN6-2/2/94 PR-BN6-2/8/96 PR-BN8-10/28/77 PR-BN8-1/24/85 PR-BN9-9/23/82 PR-BN10-5/20/94	Yes	No	No	Documented spills have occurred along the north berthing areas. The most prominent spill areas are near the manifolds for the two fuel oil delivery pipelines at Berth N-6 and Berth N-8. Recorded spills contained and cleaned up. Problems with oil fuel delivery line are ongoing as evidenced by the most recent spill in February 1996.	To be determined.
NY3	NY3	East Berthing Areas (Berths E-1 and E-2)	HWD-132-1	Yes	No	No	Sediment discharged from drydock operations via a drainage channel into the area immediately east of the caisson. Spills are also possible related to the Building 130 Carrier Mockup. Residual sludge inside the drydock was investigated in 1992 and found to not be a hazardous waste.	To be determined.

Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
NY4	NY4	South Berthing Areas (Berth S-1 through S-7)	PR-BS4-6/7/82	Yes	No	No	Only one documented spill has been identified in this area, a 1982 bilge water release. However, undocumented spills and ship discharges have occurred along the berths throughout the history of the terminal. This area may also have been affected by historic spills from oil facilities on nearby Constable Hook. The one reported spill was contained and cleaned up.	To be determined.
NY5	NY5	Southwest Shoreline Migration Concerns	PR-254AB-5/14/93	Yes	No	No	Migration is a concern from several sources including: a 1993 fuel oil spill at an UST at the GBV; a Bayonne sewer outfall; the nearby Bayonne City landfill and spills from oil facilities on Constable Hook.	To be determined
35, 44	35, 44C	Fuel Oil Delivery Line No.1 from Berth N-6 to Building 44C	None	Yes	No	No	The three USTs at 44C have been investigated and groundwater has been found to contain free product nearby. Periodic releases along the fuel oil pipeline have been contained and cleaned up. No investigation has been conducted along this pipeline itself.	To be determined.
44, 45	44C, 45	Fuel Oil Delivery Line No.2 from Berth N-8 to Building 44C	None	Yes	No	No	While the three USTs at 44C have been investigated and recent spills contained and cleaned up, no investigation of this fuel pipeline have been conducted.	To be determined.

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Table 3-2

SUMMARY OF ENVIRONMENTAL CONCERNS

Study Area	Facility Number	Description	EBS Item #s	Environmental Investigations			Findings	Final Determination
				EBS	RI	Other		
All	N/A	New York Harbor Concerns	Facility-Wide Concern	Yes	No	No	New York Harbor and upgradient areas have historically contained extensive industrial facilities and other activities that have discharged wastes directly into the harbor. Some limited sampling has been conducted for dredging purposes.	The potential contribution of New York Harbor contaminants to sediments at MOTBY should be considered during any investigation of site-related contamination potential.
All	N/A	Hydraulic Fill	Facility-Wide Concern	Yes	No	No	No investigation of the hydraulic fill has been conducted to date, although media sampling has been conducted for site-specific concerns at various sites at the facility. The placement of the fill is well-documented in historical records, maps, and aerial photographs.	To be determined.

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Table 3-3				
ENVIRONMENTAL RESTORATION EARLY ACTIONS				
Location	Concern	Action	Purpose	Status
Building 14	Hazardous Waste, Asbestos	Building was decontaminated and friable asbestos was removed.	Elimination of human health and safety risk.	Complete.
Building 101	Pesticides	Pesticide control room was renovated. No further storing or mixing of pesticides.	Prevent contamination of concrete and underlying soils.	Complete.
Building 102	Asbestos; safety hazard represented by old building	Entire building was removed and properly disposed of.	Safety hazard represented by building.	Complete.
Goldsborough Village	Lead in blinds	Blinds removed; disposed of.	Eliminate exposure potential for children	Complete.

<p align="center">Table 3-4</p> <p align="center">OPERATION-RELATED COMPLIANCE PROJECTS</p>		
Project	Status	Regulatory Program
UST Management	USTs are registered tri-annually and will be periodically tested for tightness.	RCRA Subtitle 1, N.J.A.C. 7:14B and N.J.S.A. 58:10A-21
AST Management	ASTs will be upgraded and periodically tested for tightness.	Clean Water Act, 40 CFR 110 and 112, N.J.A.C. 7:1E
Hazardous Materials Management	Hazardous Materials will be managed according to the MOTBY Pollution Prevention Plan when completed.	Clean Water Act, SARA Title III, 40 CFR 110 and 112, OSHA
Hazardous Waste Management	Hazardous wastes are accumulated at Satellite Accumulation Points and then collected for storage in a 90-day storage area.	RCRA Subtitle C
Asbestos	Friable asbestos at MOTBY is being evaluated according to MOTBY's Asbestos Management Plan.	TSCA, Residential Lead-Based Paint Hazard Reduction Act, Preliminary Assessment Guidance entitled "Lead-based Paint and Asbestos in U.S. Army Properties affected by BRAC", DoD Memorandum entitled "asbestos, Lead-Based Paint and Radon Policies at BRAC Properties".
Wastewater/Stormwater Management	Most wastewater generated at MOTBY is treated at the MOTBY STP. Discharge and sludge treatment is currently permitted under two NJPDES permits. Stormwater discharges are permitted under a general NJPDES permit. MOTBY maintains its operations in accordance with its Stormwater Pollution Prevention Plan.	Clean Water Act, NJPDES
Oil/Water Separators	Oil/Water separators will be registered until removal or upgrade can be accomplished.	Clean Water Act, 40 CFR 110 and 112
Pollution Prevention	A Pollution Prevention Plan was finalized on September 30, 1996. MOTBY actively recycles cardboard, paper, newspaper, tin, aluminum, other scrap metal, and glass.	RCRA Subtitle C, Executive Order 12856, AR600-1
Radioactive Substances	Materials are to be managed under NRC licenses and Department of Army authorizations assigned to radioactive commodity managers.	NRC Regulations 5849 and 5512

Table 3-4		
OPERATION-RELATED COMPLIANCE PROJECTS		
Project	Status	Regulatory Program
Air Emissions Source Management	MOTBY has completed preparation of its Title V Operating Permit and has submitted its emissions inventory which is currently undergoing technical review. Boilers and fuel pumps are currently permitted.	Clean Air Act, Clean Air Act Amendment AR200-1, Hudson Regional Health Commission
Pesticide Management	Pest management is managed by an EPA-registered contractor. A Pesticide Management Plan is under development by the MOTBY DPW.	AR200-1, AR420-76, 40 CFR 162, 165, and 171
Natural, Historical, and Cultural Resources	Natural, Historical, and Cultural Resources Investigations are being conducted to identify all resources.	Endangered Species Act, Natural Historic Preservation Act, Historic Sites Act, Archaeological Resources Protection Act

Table 3-5		
CLOSURE-RELATED COMPLIANCE PROJECTS		
Project	Status	Regulatory Program
UST Management	Three USTs at Building 44C are undergoing closure procedures including investigation under the RI effort.	RCRA Subtitle 1, N.J.A.C. 7:14B and N.J.S.A. 58:10A-21
Hazardous Materials Management	Close-out surveys will be performed before transfer or closure.	SARA Title III, NEPA
Hazardous Waste Management	Close-out surveys will be performed before transfer or closure.	RCRA Subtitle C
PCB Management	Final close-out survey of electrical equipment will be conducted before closure or transfer.	TSCA
Asbestos	Abatement of friable asbestos will be conducted according to the 1992 Asbestos Management Plan.	TSCA, Residential Lead-Based Paint Hazard Reduction Act, Preliminary Assessment Guidance entitled "Lead-based Paint and Asbestos in U.S. Army Properties affected by BRAC", DoD Memorandum entitled "asbestos, Lead-Based Paint and Radon Policies at BRAC Properties".
Oil/Water Separators	Units will be either upgraded or removed prior to closure.	Clean Water Act, 40 CFR 110 and 112
Radioactive Substances	A radiation close-out survey will be performed before closure.	NRC Regulations 5849 and 5512
Lead-Based Paint	A lead-based paint survey will be conducted of all buildings constructed prior to 1978. Buildings constructed prior to 1960 will be inspected and only abated when necessary.	TSCA, Residential Lead-Based Paint Hazard Reduction Act, Preliminary Assessment Guidance entitled "Lead-based Paint and Asbestos in U.S. Army Properties affected by BRAC", DoD Memorandum entitled "asbestos, Lead-Based Paint and Radon Policies at BRAC Properties".
Natural, Historical, and Cultural Resources	Natural, Cultural, and Historical Resources Investigations will be conducted to identify all resources.	NEPA, Endangered Species Act, Natural Historic Preservation Act, Historic Sites Act, Archaeological Resources Protection Act
NEPA Compliance	An Environmental Impact Statement will be prepared through USACE, Mobile District.	NEPA

Table 3-6				
COMPLIANCE EARLY ACTIONS				
Location	Concern	Action	Purpose	Status
Facility-wide	USTs	Removed 25 USTs and investigated soil for contamination. When appropriate, soil was excavated and sent for disposal.	Remove potential or confirmed contamination source for soil and groundwater	Complete. Awaiting NJDEP approval.
Facility-wide	PCBs	Removed or retrofilled all known PCB-transformers.	Prevention of potential contamination	TBD
Building 14	Asbestos	Removed friable asbestos.	Renovation of facility to remove human health risk.	Complete.
N6 to Boilerplant	Underground pipelines	To be removed - pipeline and gross contamination; further investigation to be conducted under RI as well as during removal.	Eliminate the potential for contamination.	In initial phase.

Table 3-7 ENVIRONMENTAL COMPLIANCE RECORDS, LICENSES, NOTIFICATIONS, PERMITS, AND REGISTRATIONS		
Application	Description	Expiration
USTs	Comprehensive UST registration	June 30, 1999
	PX Gas Station USTs at Building 91D	June 20, 2000
ASTs	250,000 gallon #6 fuel oil AST for generators in Building 44C	July 21, 2000
	170,000 gallon, #6 fuel oil AST for generators in Building 44C	April 16, 2001
	148,000 gallon fuel oil AST for generators in Building 44C	April 22, 2000
Air Emissions	Comprehensive Title V Operating Permit Application	The technical review period has been extended.
	Boilers at Building 44C	Permit to be received end of June 1997.
	Boiler in Building 22	May 24, 1998
	Boiler in Building 61B	May 24, 1998
	Boiler in Building 44B	December 22, 2000
	Boilers in Goldsborough Village	Permitted to January 14, 2002; Upgraded to natural gas as primary fuel source.
	Stage II vapor control for pumps at PX Gas Station, Building 91D	June 12, 1999
	Emergency generator at Building 42	Can be used but is out of service; August 13, 1996 obtained permit to alter, construct, or install.
	Sawdust control cyclone at Building 228A	June 7, 1998
Hazardous Materials and Waste Storage	Notification and storage for less than 90 days.	In compliance.
NJPDES	Stormwater Discharge Permit	November 1, 1997
	Wastewater Treatment Discharge Permit	Indefinite
	Sludge Drying Beds	May 31, 2001

Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-1A-1	3	1A	Unknown	550	Diesel	Carbon Steel, Single Wall, Fixed-Roof	Removed	Removed in 1993. No contamination above NJDEP standards.	Final NJDEP closure approval pending	None
UT-15A-1	15	15A	Unknown	1500	#2 Fuel Oil	Unknown	Unknown	The only reference for this tank is unapproved plans; therefore, this tank may have never existed.		Utility plan review and/or field investigation recommended to identify if tank exists.
UT-15B-1	15	15B	Unknown	1500	Unknown	Fixed-Roof, Steel	Unknown	The only reference for this tank is unapproved plans; therefore, this tank may have never existed.		Utility plan review and/or field investigation recommended to identify if tank exists.
UT-42-1	42	42	Unknown	1000	Diesel	Fixed-Roof, FRP	Removed	Removed in 1992. No contamination above NJDEP standards.	Final NJDEP closure approval pending	
UT-42-2	42	42	1993	2500	Diesel	Double Wall Fiberglass, Fixed Roof	Active	This tank replaced UT-42-1-1 but may have been installed improperly since water has reportedly been able to enter tank. The tank has secondary containment; no further upgrade is scheduled.		Infiltration of water into tank should be assessed and stopped.
UT-44C-1	44	44C	1951	3000	Diesel	Fixed-Roof	Removed	Removed in 1993. Investigators discovered soil contamination from what appeared to be a grease pit above the tank. Approx. 30 cubic yards of soil was removed.		Further investigation of soil/groundwater indicated by site assessment results.

Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-44C-2	44	44C	1970	100000	#6 Fuel Oil	Concrete, Single Wall	Idle	Remedial status for this tank is under discussion with NJDEP		Further delineation of contaminated soil maybe required at time of removal.
UT-44C-3	44	44C	1942	120000	#6 Fuel Oil	Concrete, Single Wall	Idle	See UT-44C-2		See UT-44C-2
UT-44C-4	44	44C	1942	120000	#6 Fuel Oil	Concrete, Single Wall	Idle	See UT-44C-2		See UT-44C-2
UT-44D-1	44	44D	1945	1000	Waste Oil	Carbon Steel, Single Wall, Fixed-Roof	Removed	Removed 1992. Results from four post-excavation soil samples, indicated TPHC below NJDEP cleanup standards.	Final NJDEP closure approval pending	
UT-44E-1	44	44E	1942	2000	Gasoline	Concrete, Fixed-Roof, Single Wall, GW Monitoring	Removed	Removed 1992. Results from soil samples collected from within the vicinity of all the 44E tanks revealed lead and total VOCs, above cleanup standards. Approx. 150 cubic yards were removed.		Site assessment report recommended further investigation and/or clean-up may be required.
UT-44E-2	44	44E	1942	2000	Gasoline	Concrete, Fixed-Roof, Single Wall, GW Monitoring	Removed	See UT-44E-1		See UT-44E-1
UT-44E-3	44	44E	1942	2000	Diesel	Concrete, Fixed-Roof, Single Wall, GW Monitoring	Removed	See UT-44E-1		See UT-44E-1

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-44E-4	44	44E	1960/1961	4000	Gasoline	Fixed-Roof, Concrete, Single Wall, GW Monitoring	Removed	See UT-44E-1		See UT-44E-1
UT-44F-1	44	44F	1992	3200	Waste Oil	Believed to be one bay of a two-bay oil separator	Shut down since January 1997	Tank in Use. Not currently under investigation.		May go back on line by end of 1997.
UT-45-1	45	45	Unknown	250	Waste Oil	Fixed-Roof	Removed	Removed in 1993. Soil samples for TPHC below NJDEP standards.	Final NJDEP closure approval pending	No further action was recommended in the Site Assessment Report.
UT-45-2	45	45	1992	550	Waste Oil	Fixed-Roof	Active	This tank is reportedly emptied every six months due to a water discharge problem associated with the tank.		Water infiltration problem should be assessed and fixed.
UT-51-1	51	51	1990	1000	#2 Fuel Oil	Coated Steel, Double Wall, Fixed Roof	Idle	This tank is scheduled to be replaced by AT-51-1. Although the tank has secondary containment, it has been the cause of two petroleum releases.		Site Assessment necessary at time of removal.
UT-52B-1	52	52B	Unknown	1000	#2 Fuel Oil	Fixed-Roof	Removed	Removed 1993. Results from four soil samples collected after the excavation revealed TPHC below NJDEP cleanup standards.	Final NJDEP closure approval pending	

Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-53A-1	53	53A	1942	5000	Diesel	Carbon Steel, Fixed Roof, Single Wall, Visual/Stock Inventory Control System	Removed	Removed 1992. Results soil samples revealed low levels of BTEX, and VOCs, as well as 680 to 3100 ppm TPHC. Approx. 60 cubic yards of soil was excavated. Area reinvestigated in 1995 and contamination was found to be more extensive than expected.		Further groundwater and soil assessment/and or removal recommended.
UT-61B-1	61	61B	Unknown	250	Diesel	Fixed-Roof	Removed	Removed 1993. Following excavation, four soil samples collected revealed TPHC below NJDEP clean up standards.	Final NJDEP closure approval pending	
UT-72-1	72	72	Unknown	250	#2 Fuel Oil	Carbon Steel, Single Wall, Fixed-Roof	Removed	Removed 1993. Following excavation, four soil samples collected revealed TPHC below NJDEP clean up standards.	Final NJDEP closure approval pending	
UT-82-1	82	82	1990	1000	Diesel	Double Wall Fiberglass	Active	The status of this tank is active, but it is not currently being drawn upon, awaiting upgrade or closure.		Leak detection system to be turned on.
UT-82-2	82	82	1973	5000	Diesel	Fixed-Roof	Removed	Removed 1990 sampling unknown.	Unknown	Check compliance status.

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-91B-1	91	91B	Unknown	250	#2 Fuel Oil	Fixed-Roof, FRP	Removed	Removed 1993. Following excavation, four soil samples collected revealed TPHC below NJDEP clean up standards.	Final NJDEP closure approval pending	
UT-91D-1	91	91D	1950	2000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof, Visual and Stock Inventory Control	Removed	Removed 1993. Free product in groundwater at 5 to 6 feet bgs. Approx. 430 cubic yards of soil removed. Post removal sampling revealed 160 to 19000 ppm TPHC and low levels of BTEX and VOCs. 18,000 gal. of groundwater containing free product removed.		The Site Assessment Report concluded that the extent of free product had not been determined and recommended that monitoring wells be installed. Further groundwater and soil investigation and/or removal recommended.
UT-91D-2	91	91D	1950	2000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof, Visual and Stock Inventory Control	Removed	See UT-91D-1		See UT-91D-1
UT-91D-3	91	91D	1993	2500	Gasoline	Fixed-Roof, FRP, Double Wall	Active	The tank was installed with double wall secondary containment and overfill protection; no further upgrade is scheduled.		

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-91D-4	91	91D	1993	2500	Gasoline	Fixed-Roof, FRP, Double Wall	Active	The tank was installed with double wall secondary containment and overfill protection; no further upgrade is scheduled.		
UT-91D-5	91	91D	1993	2500	Gasoline	Fixed-Roof, FRP, Double Wall	Active	The tank was installed with double wall secondary containment and overfill protection; no further upgrade is scheduled.		
UT-91D-6	91	91D	1971	3000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof, Visual and Stock Inventory Control System	Removed	See UT-91D-1		See UT-91D-1
UT-120-1	101	120	1942	30000	Propane	Carbon Steel, Single Wall	Removed	Removed in early 1990s.		
UT-106-1	100N	106 (old)	1942	1000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof	Removed	Removed 1992. Soil around the 106 tanks stained and had petroleum odor. Approx. 80 to 90 cubic yards of soil removed. Post removal sampling revealed 22 to 160 ppm TPHC, 11 to 69 ppm lead, and low levels of VOCs.		Although contaminant levels were below NJDEP clean up standards, the site assessment report noted that a groundwater investigation and/or clean up may be required.

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-106-2	100N	106 (old)	1942	2000	Diesel	Carbon Steel, Single Wall, Fixed-Roof	Removed	See UT-106-1		See UT-106-1
UT-106-3	100N	106 (old)	1942	2000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof	Removed	See UT-106-1		See UT-106-1
UT-106-4	100N	106 (old)	Unknown		Waste Oil	Unknown	Unknown	Tank not subject of removal for other 106 tanks. Status unknown.		To be determined.
UT-113-1	100N	113	Unknown	100	Gasoline	Unknown	Unknown	No construction details are known for this tank. The tank may have been previously removed or never installed.		Utility map review and/or field investigation should be conducted to identify if tank existed.
UT-113-2	100N	113	Unknown		Oil	Unknown	Unknown	No construction details are known for this tank. The tank may have been previously removed or never installed.		Utility map review and/or field investigation should be conducted to identify if tank existed.
UT-104-1	103	104	Unknown	5200	#2 Fuel Oil	Bare Steel, Single Wall, Fixed-Roof	Removed	Removed 1994. Results from six soil samples revealed 702 to 1870 ppm TPHC, below proposed clean up standards.	Final NJDEP closure approval pending	

Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-104-2	103	104	Unknown	5200	#2 Fuel Oil	Bare Steel, Single Wall, Fixed-Roof	Removed	Removed 1994. Results from six soil samples revealed 702 to 1870 ppm TPHC, below proposed clean up standards.	Final NJDEP closure approval pending	
UT-134-1	100S	134	1945	15000	Gasoline	Carbon Steel, Single Wall, Fixed-Roof	Removed	Removed 1992. Soil contaminated on the sides of the 134 tanks and piping. Soil sampling revealed low levels of VOCs and 16 to 50 ppm lead. Approx. 130 cubic yards of soil were removed for disposal.		Site Assessment Report noted that although soil contamination was below NJDEP clean up standards, any contamination found at the water table may require further investigation and/or clean up.
UT-134-2	100S	134	Unknown	15000	Gasoline	Unknown	Removed	See UT-134-1		See UT-134-1
UT-134-3	100S	134	Unknown	15000	Gasoline or Firefoam	Unknown	Removed	See UT-134-1		See UT-134-1
UT-228A-1	LRP	228A	1942	1000	#2 Fuel Oil	Fixed-Roof, Carbon Steel, Single Wall, Visual/Stock Inventory Control	Removed	Removed in 1993. Contaminated groundwater was encountered at 3 feet bgs. Soil sampling results revealed 160 to 19,000 ppm TPHC, significantly above clean up standards.	Site assessment report noted that a groundwater investigation and clean up might be required.	As part of the remedial action work plan for the LRP, soil and groundwater samples are to be collected in this area to help delineate the vertical/horizontal extent of soil and groundwater contamination.

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-229H-1	LRP	229H	1995	1000	#2 Fuel Oil	Fixed-Roof	Active	Under the remedial action work plan for the LRP, the UST and piping are to be removed. Confirmation sampling is to be conducted if soils are observed to require such. A site investigation of groundwater would be conducted if soils were found to be contaminated.		Under the remedial action work plan for the LRP, the UST and piping are to be removed. Confirmation sampling is to be conducted if soils are observed to require such. A site investigation of groundwater would be conducted if soils were found to be contaminated.
UT-229H-2	LRP	229H	1986	2500	#2 Fuel Oil	Carbon Steel, Single Wall	Removed	Closure of this tank is being managed by LJ Herbert Environmental Consulting Services. This tank was replaced by UT-229H-1.		A site investigation of soil is to be conducted under the remedial action intended for the LRP. If soil contamination is found, groundwater contamination will be studied.
UT-229J-1	LRP	229J	1988	2000	#2 Fuel Oil	Unknown	Removed	Closure of this tank is being managed by LJ Herbert Environmental Consulting Services. This tank was replaced by UT-229J-2. During excavation, subsurface soil contamination was discovered and reported to NJDEP.		Under the remedial action work plan for the LRP, it is proposed to delineate horizontal/vertical extent of documented soil contamination and conduct site investigation of groundwater.

Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-229J-2	LRP	229J	1994	1000	#2 Fuel Oil	Fixed-Roof	Active	The construction details of this tank are unknown. Tank is in use and is not under investigation.		Under the remedial action work plan for the LRP, the UST and piping are to be removed. Confirmation sampling is to be conducted if soils are observed to require such. A site investigation of groundwater would be conducted if soils were found to be contaminated.
UT-254AB-1	GBV	254AB	1951	5000	#2 Fuel Oil	Carbon Steel, Fixed Roof, Single Wall, Visual and Stock Inventory Control	Removed	Removed 1993. Contaminated soil intersects groundwater at 9 feet bgs. All soil deemed contaminated via field screening was removed. Results from post removal soil samples at 6 inches above the water table revealed 28 to 300 ppm TPHC.		Site Assessment Report noted that a groundwater investigation and/or clean up may be required even though soil contamination was below clean up standards.
UT-254AB-2	GBV	254AB	Unknown	5000	#2 Fuel Oil	Unknown	Removed	See UT-254AB-1		See UT-254AB-1

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Table 3-8

SUMMARY OF UNDERGROUND STORAGE TANKS

EBS Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Construction	Tank Status	Remedial Status	Regulatory Status	Future Actions
UT-254AB-3	GBV	254AB	1993	6000	#2 Fuel Oil	Fixed-Roof, FRP, Double Wall	Active	This tank replaced tank UT-254AB-1 and was constructed with double wall secondary containment and other spill protection/prevention devices.		
UT-254AB-4	GBV	254AB	Unknown	6000	#2 Fuel Oil	Unknown	Active	This tank replaced tank UT-254AB-2 and was constructed with double wall secondary containment and other spill protection/prevention devices.		
UT-234A-1	234	234A	1956	1000	#2 Fuel Oil	Carbon Steel, Single Wall, Visual/Stock Inventory Control, Fixed-Roof	Removed	Removed 1993. Results from four soil samples revealed TPHC below clean up standards.	Final NJDEP closure approval pending	
UT-234A-2	234	234A	1993	1000	#2 Fuel Oil	Double Wall, Fiberglass, Fixed Roof	Active	This tank replaced UT-234A-1 and was installed with double wall secondary containment. No details regarding its upgrade were located.		Tank integrity and construction details should be identified.
UT-235A-1	235	235A	Unknown	2000	Gasoline	Bare Steel, Single Wall, Fixed-Roof	Removed	Removed 1994. Soil sampling revealed only low levels of TPHC.	Final NJDEP closure approval pending	

Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-1A-1	1	3	1A	1993	500	Diesel	Active	Fixed-Roof, Convault	This tank was installed with secondary containment; overall protection, leak detection, sight gauge, and alarm system; no further upgrade is scheduled.	
AT-11-1		11	11	Unknown	900	#2 Fuel Oil	Removed	Fixed-Roof	The mobile boiler was probably removed from its former location in 1995, when Building 11 was demolished. No investigation report of the area was located.	
AT-22-1	4	22	22	Unknown	1000	Diesel	Active	Fixed-Roof	This tank has been misidentified as an underground storage tank in the past. It was installed as part of the MOTBY UST Restoration Plan and was upgraded with secondary containment.	Identify date upgrade occurred; date unknown.
AT-42-1-1	5	42	42-1	Unknown	275	Diesel	Active	Fixed-Roof, Painted Steel	Spillage in the past is suspected. The tank is scheduled to be upgraded with secondary containment.	Identify date of upgrade.

Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
Not available	5A	42	42-1	Unknown	25	Diesel	Active	Single-walled steel; sight gauge	Currently has inadequate secondary containment; concrete and cinder block.	Needs assessment.
AT-42-6-1	6	42	42-6	Unknown	65	Diesel	Active	Fixed-Roof	This tank was scheduled to be upgraded with secondary containment, but this upgrade was canceled, presumably because the generator was to be removed. The generator and tank are still present, and the tank is integral to the system, so both will be removed.	Tank status should be assessed; it is to be removed with the generator.
Not available	6A	42	42-1	Unknown	100	Diesel	Active	Single-walled steel; sight gauge	Has integral steel basin for secondary containment.	
TT-44A-1		44	44A	N/A	1100	Gasoline	Removed	N/A	When the tank truck was used, it was filled at facility 44E.	

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
TT-44A-2		44	44A	N/A	1250	Diesel	Active	Tank Truck	This truck replaced a truck formerly used for fuel distribution. The trucks were supplied with fuel for distribution by the 5000-gallon UST at Building 53A before it was removed. As a mobile tank, it is not listed in the draft MOTBY Title V Permit Application.	It is to be provided with some form of secondary containment.
TT-44A-3		44	44A	N/A	1200	Gasoline	Active	Tank Truck	This truck replaced a truck formerly used for fuel distribution. The trucks were supplied with fuel for distribution by the 5000-gallon UST at Building 53A before it was removed. As a mobile tank, it is not listed in the draft MOTBY Title V Permit Application.	It is to be provided with some form of secondary containment.
AT-44B-1	9A	44	44B	1993	500	Diesel	Active	Fixed-Roof, Steel	The tank was installed when the new fire station was completed in 1993; however, construction details of the tank are unknown.	To be upgraded; and provided with secondary containment.

Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-44B-2	9	44	44B	1993	4000	#2 Fuel Oil	Active	Fixed-Roof, Double Wall, Steel	The tank has secondary containment and other spill prevention/protection devices; an upgrade is planned.	Remove short length of underground piping.
AT-44C-1		44	44C	Unknown	2000	Unknown	Removed	Fixed-Roof	This tank is no longer there.	Site Assessment recommended
AT-44C-2		44	44C	Unknown	2000	Unknown	Removed	Unknown	This tank is no longer there.	Site Assessment recommended
AT-44D-1	17E	44	44D	Unknown	250	Gasoline	Active	Fixed-Roof	This tank may or may not still be used; however, it was not observed at the time of the EBS Survey. It is identical in use and size to AT-83-1.	The tank is to be removed; it is empty.
AT-44D-2		44	44D	Unknown	250	Diesel	Active	Fixed-Roof	This tank may or may not still be used; however, it was observed at the time of the EBS Survey. It is identical in use and size to AT-83-2.	This tank is gone.
AT-44D-3	17	44	44D	Unknown	275	Diesel	Active	Fixed-Roof	This tank has overfill protection (overfill bucket) and secondary containment.	No further action is planned.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-44D-4	14	44	44D	Unknown	275	Gasoline	Active	Fixed-Roof	This tank has overfill protection (overfill bucket) and secondary containment.	No further action is planned.
AT-44D-5		44	44D	Unknown	300	Waste Oil	Removed	Fixed-Roof	This tank was cited in the 1989 DPCC Plan but is no longer present at Building 44D. No investigation report of this area has been located.	Site Assessment recommended
AT-44D-6	17C	44	44D	Unknown	275	New Oil	Active	Fixed-Roof	This tank is one of four similar tanks located in this area. None have secondary containment and they have not been reported to receive modification. These tanks are not listed in the draft Title V Permit Application.	Secondary containment to be upgraded or removed.
AT-44D-7	17D	44	44D	Unknown	275	New Oil	Active	Fixed-Roof	This tank is one of four similar tanks located in this area. None have secondary containment and they have not been reported to receive modification. These tanks are not listed in the draft Title V Permit Application.	Secondary containment to be upgraded or removed.

Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-44D-8	16	44	44D	Unknown	500	Diesel	Active	Fixed-Roof	This tank is listed as upgraded with a high-level pump cutoff mechanism and a drain valve inside secondary containment. These improvements were not confirmed.	Secondary containment to be upgraded or removed.
AT-44D-9	13	44	44D	Unknown	500	Waste Oil	Active	Fixed-Roof	This tank is listed as upgraded with a high-level pump cutoff mechanism and a drain valve inside secondary containment. These improvements were not confirmed.	Secondary containment to be upgraded or removed.
AT-44D-10	15	44	44D	Unknown	275	Gasoline	Active	Fixed-Roof	This tank is listed as upgraded with a high-level pump cutoff mechanism and a drain valve inside secondary containment. These improvements were not confirmed.	Secondary containment to be upgraded or removed.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-44D-11	17B	44	44D	Unknown	275	New Hydraulic Oil	Active	Fixed-Roof	This tank is one of four similar tanks located in this area. None have secondary containment and they have not been reported to receive modification. These tanks are not listed in the draft Title V Permit Application.	Secondary containment to be upgraded or removed.
AT-44D-12	17A	44	44D	Unknown	500	New Transmission Fluid	Active		This tank is one of four similar tanks located in this area. None have secondary containment and have not been reported to receive modification. These tanks are not listed in the draft Title V Permit Application.	Secondary containment to be upgraded or removed.
AT-44F-1	12	44	44F	1992	148000	#6 Fuel Oil	Active	Fixed-Roof, Vertical, Steel, Secondary Containment	No further upgrade of this tank is scheduled. It has an approximate annual throughput of 445,000 gallons per year. This tank receives its fuel via a tank or truck.	To be upgraded; overfill alarm to be removed; secondary containment area to be cleaned out.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-44F-2	11	44	44F	1992	170000	#6 Fuel Oil	Active	Fixed-Roof, Vertical, Steel, Secondary Containment	No further upgrade of this tank is scheduled. Its approximate annual throughput is unknown. It receives fuel from a tank or truck.	Secondary containment needs to be cleaned out.
AT-44F-3	10	44	44F	1979	250000	#6 Fuel Oil	Active	Fixed-Roof, Vertical, Steel, Secondary Containment	This tank is scheduled to be upgraded with an alarm. Its approximate annual throughput is 750,000 gallons per year which is supplied to the tank by tank or truck.	Secondary containment needs to be cleaned out.
AT-51-1	18A	51	51	Unknown	1000	#2 Fuel Oil	Idle	Convault, Double Wall, Fixed Roof	Secondary containment and other spill prevention/protection devices are included in the construction of this tank. It is not listed in the draft Title V Permit Application.	Short length of underground piping to be removed or provided with secondary containment and leak detection.
AT-51-2	31B	51	51	Unknown	275	#2 Fuel Oil	Active	Steel, Single Wall, Fixed Roof	No secondary containment or other spill prevention/protection devices were observed for this tank.	Moved to 101, to be emptied and removed.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-51-3	31C	51	51	Unknown	275	#2 Fuel Oil	Idle	Steel, Single Wall, Fixed Roof	No secondary containment or other spill prevention/protection devices were observed for this tank. The lines from this tank were not attached to anything at the time of the EBS survey.	Moved to 101, to be emptied and removed.
AT-52B-1	19	52	52B	1993	500	#2 Fuel Oil	Active	Fixed-Roof Convault	This tank replaced UT-52B-1 and has secondary containment, overfill protection, leak detection, sight gauge, and alarm system; no further upgrade is scheduled.	
TC-53A-1		53	53A	N/A	10000	Diesel	Removed	Fixed-Roof	After the tank cars were removed in 1994, contamination was found to be more extensive than expected.	Further investigation recommended.
TC-53A-2		53	53A	N/A	10000	Diesel	Removed		After the tank cars were removed in 1994, contamination was found to be more extensive than expected.	Further investigation recommended

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-61B-1	21	61	61B	Unknown	500	#2 Fuel Oil	Active	Fixed-Roof, Convault	The tank was installed with secondary containment, overfill protection, leak detection, sight gauge, and alarm system; but is scheduled for further unidentified upgrade modifications.	Identify upgrade plans.
AT-61B-2	20	61	61B	Unknown	550	Diesel	Active	Fixed-Roof	This tank has secondary containment; no further upgrade is scheduled.	
AT-72-1	23	72	72	Unknown	500	Diesel	Active	Fixed-Roof, Convault	This tank has secondary containment, overfill protection, leak detection, sight gauge, and alarm system; no further upgrade is scheduled.	
AT-72-2	23	72	72	1993	500	Propane	Active	Convault, Fixed-Roof	The tank is constructed of painted steel.	
Not Available	23A	75	75	Unknown	2,000	Diesel	Not Yet Active	Fibervault		Task is not yet operational.
Not Available	23B	75	75	Unknown	2,000	#2 Fuel Oil	Not Yet Active	Fibervault		To be installed.
AT-82-1	24	82	82	Unknown	275	Diesel	Active	Fixed-Roof	In the past, this tank may have been identified as a 250-gallon tank. It has secondary containment.	No upgrade planned.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
Not Available	24A	82	82	Unknown	275	Diesel	Active	Single-walled steel, with sight gauge	No secondary containment.	
Not Available	24B	82	82	Unknown	30	Diesel	Active	Single-walled steel, with sight gauge	Integral steel basins.	
AT-83-1		83	83	N/A	250	Gasoline	Removed	Fixed-Roof	This tank may or may not still be used; however, it was not observed at the time of the EBS Survey. It is identical in use and size to AT-44D-1.	Tank details should be identified.
AT-83-2		83	83	N/A	250	Diesel	Removed	Fixed-Roof	This tank may or may not still be used; however, it was observed at the time of the EBS Survey. It is identical in use and size to AT-44D-2.	Tank details should be identified.
AT-83A-1		83	83A	Unknown	100	Diesel	Removed	Fixed-Roof	This tank was not observed during the EBS survey.	Tank details should be identified.
AT-83A-2		83	83A	Unknown	500	Waste Oil	Removed	Fixed-Roof	This tank was not observed during the EBS survey.	Tank details should be identified.
AT-83A-3	26	83	83A	Unknown	2000	#2 Fuel Oil	Active	Fixed-Roof	The tank currently sits in a concrete secondary containment pit.	No upgrade planned.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-83C-1		83	83B	Unknown	500	Propane	Active	Fixed-Roof, Painted Steel	This tank is constructed of painted steel and has copper piping.	
AT-83D-1		83	83D	Unknown	500	Propane	Active	Fixed-Roof, Painted Steel	This tank is constructed of painted steel and has copper piping.	
AT-83D-2	28	83	83D	Unknown	500	Gasoline	Active	Fixed Roof, Steel, Secondary Containment	This tank is equipped with a high level pump cutoff and a drain valve inside secondary containment and overfill protection (bucket); no further upgrade is scheduled.	No upgrade scheduled.
AT-91A-1		91	91A	Unknown	275	#2 Fuel Oil	Removed	Fixed-Roof	It is assumed that this tank has been replaced by MOTBY tank #30.	Confirm whether this tank has been replaced by MOTBY tank #30.
Not Available	30	91	91A	Unknown	500	#2 Fuel Oil	Active	Convault		
AT-91B-1	31	91	91B	Unknown	500	Diesel	Active	Fixed-Roof	The tank was installed with secondary containment; no further upgrade is scheduled.	
AT-91C-1		91	91C	Removed	275	Diesel	Removed	Fixed-Roof	No information about this tank was available. This tank was not found during the EBS survey.	This tank has been removed.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
Not Available	31A	31A	100	Unknown	550	Diesel	Active	Single-walled steel; with sight gauge.	No containment	
AT-105-1		101	105	Unknown	1000	#2 Fuel Oil	Removed	Unknown	No removal details were located.	Tank status should be identified. Site assessment may be necessary.
AT-108-1		108	108	Unknown	275	Diesel	Removed	Fixed-Roof	The tank was supposedly maintained within secondary containment; however, in 1994, the drain plug for the secondary containment was noted as missing. An investigation report for this area has not been located.	Site assessment may be required if not previously conducted.
Not Available	31D		111	Unknown	275	Empty	Active	Single-walled steel	No containment.	
AT-130-1		100S	130	Unknown	5000	#2 Fuel Oil	Removed		No investigation report for this area was located.	Site assessment may be required if not previously conducted.
AT-130-2		100S	130	Unknown	5000	#2 Fuel Oil	Removed	Unknown	No investigation report for this area was located.	Site assessment may be required if not previously conducted.

Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-211A-1		211	211A	Unknown	275	#2 Fuel Oil	Removed	Fixed-Roof	This tank was supposed to be upgraded with a drain cover; however, it appears to have been replaced by MOTBY tank #32.	Tank has been replaced; date unknown.
Not available	32	32	211A	Unknown	500	#2 Fuel Oil	Active	Convault		
AT-228A-1	33	LRP	228A	1993	1000	#2 Fuel Oil	Active	Fixed-Roof, Convault	This tank replaced UT-228A-1 and was installed with secondary containment, overfill protection, leak detection, sight gauge, and alarm system. No further upgrade is scheduled.	Under the remedial action work plan - LRP - it is proposed that the AST and piping be removed. Potential soil contamination will be investigated if observed. This would be undertaken by the tank removal contractor.
AT-235B-1		235	235B	Unknown	275	#2 Fuel Oil	Removed	Fixed-Roof	This tank was replaced with an upgraded tank (MOTBY tank #34) that includes secondary containment and other spill protection/prevention devices.	Tank has been replaced; date unknown.

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Table 3-9

SUMMARY OF ABOVEGROUND STORAGE TANKS

EBS Tank Number	MOTBY Tank Number	Study Area	Facility Number	Year Installed	Unit Capacity	Contents	Tank Status	Tank Construction	Remedial Status	Future Actions
AT-236B-1		236	236B	Unknown	1000	Propane	Removed	Unknown	More than one tank has been reported but this has not been confirmed.	Tank details should be identified.

Table 3-10
RARE, THREATENED, OR ENDANGERED SPECIES IN
THE VICINITY OF MOTBY

Identification of rare, threatened, or endangered species in the vicinity of MOTBY will be completed as part of the survey for natural resources required by NEPA. Once this survey is complete, this table will be used to present the information in future versions of the BCP.

Table 3-11
HISTORICAL, NATURAL, AND CULTURAL RESOURCES IN
THE VICINITY OF MOTBY

A survey to identify historical, natural, and cultural resources in the vicinity of MOTBY will be conducted soon. Once completed, the information will be included in future versions of the BCP in this table.

Table 3-12		
CERFA CATEGORIZATION SCHEME USED FOR THE EBS		
CERFA Category	Environmental Condition of Property	CERCLA Notification Requirements
1	Areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).	No notification required; can be identified under CERCLA 120(h)(4) as "CERFA-uncontaminated"
	Areas where no evidence exists for the release or disposal of hazardous substances or petroleum products, or migration from adjacent areas. The parcel, however has historically been used to store less than reportable quantities of hazardous substances (as defined in 40 CFR 302.4), or 600 or fewer gallons of petroleum products.	No notification required.
2	Areas where only storage of more than reportable quantities of hazardous substances or 600 gallons of petroleum products has occurred, but storage has occurred for less than 1 year (no release, disposal, or migration from adjacent areas).	No notification required.
	Areas where only storage of more than reportable quantities of hazardous substances or more than 600 gallons of petroleum products has occurred, and storage has occurred for more than 1 year (no release, disposal or migration from adjacent areas).	Notification of storage, release, or disposal as prescribed in CERCLA 120(h) (1) for contracts for sale and (3) for deeds.
3	Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but at concentrations that do not require a removal or remedial action.	Not eligible for transfer by deed.
4	Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred and all remedial actions necessary to protect human health and the environment have been taken.	
5	Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred and removal, and/or remedial actions, are underway, but all required remedial actions have not yet been taken.	Not eligible for transfer by deed.
6	Areas where storage, release, disposal, and/or migration of hazardous substances or petroleum products has occurred, but required response actions have not yet been implemented.	
7	Areas that are unevaluated or require additional evaluation.	

Table 3-13

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 1

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
25	3.99	25	This area was assigned category 1 because no environmental concerns were identified and the possibility of migration as a result of environmental concerns from adjacent areas is considered low.
51	2.85 ^a	51	This area was assigned category 6 on the western side because of a history of petroleum storage and releases. The remainder of the area was assigned 1 because no environmental problems could be identified.
55	2.85 ^a	None	This area was assigned category 5 on the eastern half because of a large PCB spill which was cleaned up, but for which no subsequent confirmatory sampling data could be found. No environmental concerns were identified for the western half which was assigned category 1.
62	5.23	62	This area was assigned category 1 because no environmental concerns were identified for the area and the likelihood of migration from adjoining study areas is low.
64	5.29	64	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
71	3.16	71A	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
74	5.49	74	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
75	4.59 ^a	75	Most of this area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low. The exception is the western portion, which was assigned category 7 because of the possibility for contaminant migration from Study Area 85.
84	4.26	84	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
94	3.05 ^a	94	Most of this area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low. However, the western third of this area was assigned category 7 due to the potential for migration from the former DRMO yard in 203 and 204.

Table 3-13			
PARCELS ASSIGNED SECONDARY CERFA CATEGORY 1 (All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)			
Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
100P	1.37 ^a	None	This area was assigned category 7 along the northern edge because a concern exists about possible migration from 103. The southern portion has no environmental concerns, and was assigned category 1.
201	2.46	201A	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
211	1.26 ^a	211A	This area was assigned category 1 on the eastern side because the only environmental concern identified was a 275 gallon aboveground storage tank for fuel oil that is located within an enclosure. This area was assigned category 7 on the western side because of the potential for migration from adjoining Area 222.
236	4.85	None	This area was assigned category 1 because the only environmental concern identified was a septic tank and line used for domestic sewage from the residence at 234A and the former trailers (236A-D) and because the potential for migration from adjoining sites is considered low.
237	2.98	NYCOE Trailers	This area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low.
Total Acreage ^b	53.68		

^a Identifies acreage which does not comprise entire study area.

^b The total acreage of secondary category 1 property based on Draft Final EBS mapping. This information has not yet been reconciled with acreage in the deed descriptions.

Table 3-14
PARCELS ASSIGNED SECONDARY CERFA CATEGORY 2

Currently, there are no MOTBY parcels which have been assigned secondary CERFA category 2. Should a parcel be reclassified as category 2, it will be identified in this table.

Table 3-15
PARCELS ASSIGNED SECONDARY CERFA CATEGORY 3

Currently, there are no parcels at MOTBY which have been assigned secondary CERFA category 3. Should a parcel be reclassified as category 3, it will be identified in this table.

Table 3-16 PARCELS ASSIGNED SECONDARY CERFA CATEGORY 4 (All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)			
Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
61	1.10 ^a	61B, 61C, 61E	The western half of this study area was assigned category 4 because of an UST that has been removed. The eastern half was assigned category 6 because confirmatory sampling needs to be performed for a substation.
65	5.4	None	This area was assigned category 4 because of remediated petroleum releases.
72	3.54 ^a	72, 72B, 72C	The eastern portion of this area (around Building 72) was assigned category 4 because of a removed UST. The western end of the area was assigned category 7 because of uncharacterized hazardous material storage at Building 72A.
Total Acreage ^b	10.04		

^a Identifies acreage which does not comprise entire study area.

^b The total acreage of secondary category 4 property based on Draft Final EBS mapping. This information has not yet been reconciled with acreage in the deed descriptions.

Table 3-17

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 5

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
GBV	2.32 ^a	254AB, 229A	The area around 254AB was assigned category 5 because of a history of releases and contamination concerns related to the removed USTs, some of which have been remediated. All other areas were assigned category 7 because of the possibility for contaminant migration from adjoining areas and off-site property.
LF	18.25 ^a	LF	The identified landfill area was assigned category 5 because of the ongoing remedial effort of this site as RI site 1. A part of the area was assigned category 7 because of the unknown potential for migration of contamination from the landfill.
LRP	14.2	Main Gate Area, 84A, 228A-F, 229H, 229J	The area was assigned category 5 because investigations associated with tank removals and the NJ Transit construction effort have indicated the possibility of groundwater and subsurface soil contamination. Off-site investigation by NJDOT has also indicated the potential for migration of contamination from off site to on site and/or on site to off site. An additional concern is the possible discharge of photo wastes to the sanitary sewer. Some remedial efforts (UST removals) have been conducted at the site.
NY2	64.46	North Berths	This area was assigned category 5 because of numerous spills for which spill containment and remediation activities occurred, but for which complete characterization of residual contamination has not been conducted.
4	1.18 ^a	None	This area was assigned category 5 around former Building 4 because of available information on uncontrolled former storage practices. Even though the waste and building have been removed, no confirmatory sampling data has been located. The north bulkhead area was assigned category 7 because of the unknown potential for contamination from a former preservation tank and sandblasting residue found on the ground.
11	3.11	None	This area was assigned category 5 because Building 11 was formerly a pesticide storage building. Although the building has been removed, no confirmatory sampling data exists.

Table 3-17

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 5
 (All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
14	5.16	14	This area was assigned category 5 due to the former large-scale storage of hazardous waste in the late 1980s. Although the building inside area has been remediated and the building fully renovated, no subsurface confirmatory sampling data was located and subsurface sampling may not have been conducted.
31	7.24	None	This area was assigned category 5 because environmental sampling was not performed after the building was demolished. The concerns are former pesticide storage in the building, and the historic storage of explosives in 1939-1941.
35	1.24 ^a	35	Most of this area was assigned category 6 because of a history of uncharacterized hazardous material, hazardous waste, and petroleum storage and releases. However, the northwestern edge was assigned category 5 because of concerns regarding the fuel pipeline associated with Study Area 44 that have been partially remediated.
44	5.14	44A, 44B, 44C, 44D, 44F	This area was assigned category 5 because of the extensive history of petroleum storage and releases that have been documented as impacting most of the area. Remedial activity has been conducted and is underway in regards to some of the identified concerns.
45	5.46	45	This area was assigned category 5 because of storage and disposal activities that have historically occurred here, some of which have been remediated. There is also a capped acid pit which was the subject of an RI investigation (RI site 5), and may require further investigation or remediation.
53	2.67 ^a	53A, 53B	The eastern portion of this area was assigned category 5 because investigations have indicated that further contamination is possible, but some removals have occurred. The western half of the study area was assigned category 7 because of the potential for contaminant migration from Study Area 63.
55	2.95 ^a	None	This area was assigned category 5 on the eastern half because of a large PCB spill which was cleaned up, but for which no subsequent confirmatory sampling data could be found. No environmental concerns were identified for the western half which was assigned category 1.

Table 3-17

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 5

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
73	1.04 ^a	73, 73A	The western part of this area was assigned category 5 because of the former and present storage of hazardous material. The remainder of the area is categorized a 7 due to a potential for migration from the western area.
85	3.86 ^a	85	The former fire fighting area was assigned category 5 pending investigation of the 1989 kerosene spill, the former landing craft area, and resampling of the two USCG wells. The remainder of the area was categorized a 7 pending completion of the investigation of the fire training area.
91	1.73 ^a	91A, 91D, 91E	The eastern part of this area around the gas station was assigned category 5 because of the extensive contamination that was found during investigation and removal of the former underground storage tanks and the possibility for further contamination. The western part of the area was assigned category 7 because no information was located concerning the former paint storage building.
100N	1.42 ^a	None	This area was assigned category 5 along the very western edge because of USTs associated with B106, which are the subject of ongoing remedial effort. The rest of the study area was assigned category 7 because of unknown environmental implications associated with the Navy Test Area and Building 113.
100S	1.73 ^a	136	This area was assigned category 5 along the eastern edge because while an investigation of the area has been conducted, further work is likely to be needed around the B130 and B134 tanks. The western edge is considered a 7, because of the potential for migration from either the tanks or Study Area 108.
101	1.69 ^a	105	The area around Building 105 was assigned Category 5 in light of the ongoing remedial work at the site. The Building 100 and 101 areas were assigned category 7 because of the numerous unknowns associated with historic activities at the various buildings.
203	4.25	203, 222A	This area was assigned category 5 because it is the subject of ongoing remedial effort as part of RI site 9.
204	4.59	204, 204A, 204B	This area was assigned category 5 because it is the subject of ongoing remedial effort as part of RI sites 4 and 9.

Table 3-17 PARCELS ASSIGNED SECONDARY CERFA CATEGORY 5 (All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)			
Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
222	1.90 ^a	None	The identified former navy storage area was assigned category 5 because of the ongoing remedial effort at the site as RI site 2. The remainder of the area was assigned a 7 because of a potential for migration from the storage area or the landfill.
Total Acreage ^b	155.59		

^a Identifies acreage which does not comprise entire study area.

^b The total acreage of secondary category 5 property based on Draft Final EBS mapping. This information has not yet been reconciled with acreage in the deed descriptions.

Table 3-18

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 6

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
NY4	55.75	South Berths	This area was assigned category 6 because at least one spill was recorded at the south berths. Other spills are likely over the 57 years of use. There is also a concern of contamination as a result of spills at Constable Hook.
NY5	72.11 ^a	South Shoreline	The tidal portion of this study area was assigned category 6 because of the potential for contaminant migration from the Bayonne Landfill and the potential residual impact of recorded spills at Constable Hook. The onshore areas were assigned category 7 because of the potential for migration from the RCY.
12	4.68	12	This area was assigned category 6 because of uncontrolled storage of drums in the alcove between Buildings 12 and 22. The drums have been removed but the area has not been characterized. Former pesticide storage in this area has also not been characterized.
13	5.22	13	This area was assigned category 6 because of former drum storage on the south side of the building. The drums have been removed, but the area has not been characterized. The possibility for contaminant migration from adjacent areas caused the entire area to be categorized equally.
23	4.98	23	This area was assigned category 6 because of the need for environmental characterization due to the extensive use of the building for hazardous material storage over the past 54 years.
32	4.65	32	This area was assigned category 6 because there is a history of uncontrolled drum storage, and there was a rust removal/preservation room in the building.
33	4.78	33	This area was assigned category 6 because the area has an 8-year history of paint and oil storage and has not been characterized.
35	3.80*	35	Most of this area was assigned category 6 because of a history of uncharacterized hazardous material, hazardous waste, and petroleum storage and releases. However, the northwestern edge was assigned category 5 because of concerns regarding the fuel pipeline associated with Study Area 44 that have been partially remediated.
51	0.79*	51	This area was assigned category 6 on the western side because of a history of petroleum storage and releases. The remainder of the area was assigned 1 because no environmental problems could be identified.

Table 3-18 PARCELS ASSIGNED SECONDARY CERFA CATEGORY 6 (All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)			
Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
61	1.28*	61D	This area was assigned category 6 on the eastern half because confirmatory sampling needs to be collected for the substation. The western half was assigned category 4 because of an UST that has been removed.
63	4.09	63	This area was assigned category 6 because it is a former storage area but the area has not been characterized.
103	2.33	103, 104	This area was assigned category 6 because of former uncontrolled indoor and outdoor storage and the lack of environmental investigation information for the study area.
Total Acreage ^b	164.46		

^a Identifies acreage which does not comprise entire study area.

^b The total acreage of secondary category 6 property based on Draft Final EBS mapping. This information has not yet been reconciled with acreage in the deed descriptions.

Table 3-19

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7**(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)**

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
LF	10.97 ^a	LF	The identified landfill area was assigned category 5 because of the ongoing remedial effort of this site as RI site 1. A part of the area was assigned category 7 because of the unknown potential for migration of contamination from the landfill.
FILL	18.9	None	This area was assigned category 7, pending final delineation and characterization of the landfill. An additional concern is the proximity of this study area to the burning trenches, burning bin, and the tepee incinerator in 205.
RCY	41.39	Railroad Classification Yard, 201	This area was assigned category 7 because little information was located on historic activities, housekeeping, or other problems in the railroad classification yard and along the unloading platforms.
GBV	9.43 ^a	251AC, 252AB, 253AB, 229B, 229E-F	The area around Building 254AB was assigned category 5 because of a history of releases and contamination concerns related to the removed USTs, some of which have been remediated. All other areas were assigned category 7 because of the possibility for contaminant migration from adjoining areas and off-site property.
NY1	41.74	86A - C, North Shoreline	This area was assigned category 7 because of migration concerns from the Former Fire Training Area (RI site 8), the burning trenches, the landfill (RI site 1), and DRMO (RI sites 4, 9).
1	1.79	1B, 1C, 1D, 1E, 1F, 1G	This area was assigned category 7 because of a history of discharges and disposal directly to the sanitary sewer from a variety of sources such as the photolabs. This disposal could have impacted the sewage treatment plant facilities. More information is needed to further characterize the area.
2	0.62	None	This area was assigned category 7 because of the possibility of migration from adjacent sites. The area is adjacent to Study Areas 103, 12, and 13 which were assigned category 6.
NY3	4.12	East Berths	This area was assigned category 7 because dry dock sediments potentially containing unknown contaminants were flushed, accidentally and intentionally, into this area. No characterization of this area for this concern has been conducted.
3	1.05	1A, 106	This area was assigned category 7 because of a history of disposal to the sanitary sewer which may have impacted the sump pump and because of the possibility of migration from Study Areas 103, 12, and 13.

Table 3-19

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7**(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)**

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
4	1.47 ^a	None	This area was assigned category 5 around former Building 4 because of available information on uncontrolled former storage practices. Even though the waste and building have been removed, no confirmatory sampling data has been located. The north bulkhead area was assigned category 7 because of the unknown potential for contamination from a former preservation tank and sandblasting residue found on the ground.
NY5	12.57 ^a	South Shoreline	The tidal portion of this study area was assigned category 6 because of the potential for contaminant migration from the Bayonne Landfill and the potential residual impact of recorded spills at Constable Hook. The onshore areas were assigned category 7 because of the potential for migration from the RCY.
15	3.7	15	This area was assigned category 7 because of concerns regarding former petroleum storage on the west side, near Buildings 15A and 15B. The only concern for the east side is the potential for migration from adjacent areas.
22	4.58	22, 22A	This area was assigned category 7 because of former drum storage in the alcove between Buildings 12 and 22 and a history of photo discharges to the sanitary sewer at the Federal Archive Center Microfilm Laboratory.
24	5.22	24	This area was assigned category 7 because the possibility of migration from Area 23 is uncharacterized.
34	5.04	34	This area was assigned category 7 because of a concern regarding possible migration from Study Area 44.
41	3.59	41	This area was assigned category 7 because no removal or confirmatory sampling was found concerning identified hazardous material storage.
42	4.6	42, 42B	This area was assigned category 7 because of the concerns raised about the possible sanitary discharges from film processing laboratories on 42-2, 42-4, 42-5, and 42-6 and residual concerns about hazmat and hazwaste handling at the former printing plant and solvent room on 42-5.

Table 3-19

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
43	4.55	43	This area was assigned category 7 because of a battery spill at an unknown location somewhere in the building. The spill was cleaned up, but no confirmatory data could be found. There is also a concern over migration from adjacent areas, particularly Study Area 44.
52	4.63	52A, 52B, 52D, 52E	This area was assigned category 7 because of potential discharges to the sanitary sewer at the X-ray laboratory in 52B and potential migration, in addition to potential migration from Area 53.
53	1.88 ^a	None	The western half of the study area was assigned category 7 because of the potential for contaminant migration from Study Area 63. The eastern portion was assigned category 5 because investigations indicate that further contamination is possible, though some removals have occurred.
54	5.7	54	This area was assigned category 7 because of a migration concern from Study Areas 44 and 53.
72	0.89 ^a	72, 72A, 72B, 72C	This area was assigned category 4 around Building 72 because of a removed UST. The western end of the area was assigned category 7 because of uncharacterized hazardous material storage at Building 72A.
73	3.21 ^a	73	The western part of this area was assigned category 5 because of the former and present storage of hazardous material. The remainder of the area is categorized a 7 due to a potential for migration from the western area.
75	0.74 ^a	75	Most of this area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low. The exception is the western portion, which was assigned category 7 because of the possibility for contaminant migration from Study Area 85.
82	4.23	82	This area was assigned category 7 because of an unknown storage tank identified for the study area. If details for the tank could be identified, the study area would likely qualify for category 2.

Table 3-19

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7
(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
83	3.97	83, 83A, 83B, 83C, 83D	This area was assigned category 7 because of concerns regarding ASTs and other historic general fueling concerns. The western part of the area qualified for category 7 because of potential of migration from the fueling area.
85	1.03 ^a	85	The former fire fighting area was assigned category 5 pending investigation of the 1989 kerosene spill, the former landing craft area, and resampling of the two USCG wells. The remainder of the area was categorized a 7 pending completion of the investigation of the fire training area.
91	0.90 ^a	91B, 91C	The eastern part of this area around the gas station was assigned category 5 because of the extensive contamination that was found during investigation and removal of the former underground storage tanks and the possibility for further contamination. The western part of the area was assigned category 7 because no information was located concerning the former paint storage building.
92	4.87	92, 92A, 92B, 92C	This area was assigned category 7 because of the potential for migration from adjoining Areas 91 and 203.
93	4.22	93	This area was assigned category 7 because of the possibility of historic use by DPDO and the potential for migration from the former DRMO yard in 203 and 204.
94	1.42 ^a	94	Most of this area was assigned category 1 because no environmental concerns could be identified and because the potential for migration from adjoining sites is considered low. However, the western third of this area was assigned category 7 due to the potential for migration from the former DRMO yard in 203 and 204.
95	5.29	95	This area was assigned category 7 because of the potential for migration from adjoining Areas 203/204.
100DD	9.36	122, 132	This area was assigned category 7 because of data gaps concerning sludge testing and the pumpwell sump. Note: flushing of the dry dock is the reason Study Area NY3 was assigned category 7 due to the potential for residual contaminated sediment outside the caisson.

Table 3-19

PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7

(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)

Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
100S	5.35 ^a	136	This area was assigned category 5 along the eastern edge because while an investigation of the area has been conducted, further work is likely to be needed around the B130 and B134 tanks. The western edge is considered a 7, because of the potential for migration from either the tanks or Study Area 108.
100N	7.71 ^a	None	This area was assigned category 5 along the very western edge because of USTs associated with B106, which are the subject of ongoing remedial effort. The rest of the study area was assigned category 7 because of unknown environmental implications associated with the Navy Test Area and Building 113.
100P	1.40 ^a	None	This area was assigned category 7 along the northern edge because a concern exists about possible migration from 103. The southern portion has no environmental concerns, and was assigned category 1.
101	6.86 ^a	100, 101	The Building 100 and 101 areas were assigned category 7 because of the numerous unknowns associated with historic activities at the various buildings. The area around Building 105 was assigned Category 5 in light of the ongoing remedial work at the site.
102	4.48	102, 102A	This area was assigned category 7 because of migration concerns from adjoining areas 4, 100N, and 103.
108	4.5	108, 110, 111	This area was assigned category 7 because of the B108 substation; a history of paint and oil storage at B110; and current hazardous waste storage at B111.
202	4.6	202	This area was assigned category 7 because of migration concerns from the former DRMO area (Lots 203, 204).
205	6.25	205	This area was assigned category 7 because of the potential for migration from the landfill and Study Areas 203 and 204. There are also uncharacterized concerns associated with former burning trenches, a burning bin and the tepee incinerator.
211	1.22 ^a	211A	This area was assigned category 1 on the eastern side because the only environmental concern identified was a 275 gallon aboveground storage tank for fuel oil that is located within an enclosure. This area was assigned category 7 on the western side because of the potential for migration from adjoining Area 222.

<p align="center">Table 3-19</p> <p align="center">PARCELS ASSIGNED SECONDARY CERFA CATEGORY 7</p> <p align="center">(All parcels are officially CERFA category 7 pending investigation of facility-wide concerns)</p>			
Study Area	Area (acres)	Facilities within Study Area	Secondary Category Rationalization
212	4.41	212	This area was assigned category 7 because of migration concerns from RI site 2 (lot 222); RI site 1 (landfill); and RI sites 4 and 9 (DRMO lots 203 and 204).
221	6.27	221, 221A, 221B, 221C	This area was assigned category 7 due to a NJDEP concern regarding potential aerial fallout from former burning activities at LOT 222.
222	2.43 ^a	None	The identified former navy storage area was assigned category 5 because of the ongoing remedial effort at the site as RI site 2. The remainder of the area was assigned a 7 because of a potential for migration from the storage area or the landfill.
230	0.79	None	This area was assigned category 7 because of a report of contaminated backfill used in the vicinity of the 40th St. Gate and potential for migration from Highway 169.
232	5.67	232, 232A	This area was assigned category 7 because of a concern that landfill activities in the LF study area may not be fully delineated or characterized.
234	2.03	234A	This area was assigned category 7 because of the potential for migration of contamination from Route 169.
235	2.56	235A, 235B, 235C	This area was assigned category 7 because of the potential for migration from Route 169.
Total Acreage^b	294.20		

^a Identifies acreage which does not comprise entire study area.

^b The total acreage of secondary category 7 property based on Draft Final EBS mapping. This information has not yet been reconciled with acreage in the deed descriptions.

4 Facility-Wide Strategy for Environmental Restoration

Prior to the official announcement of the closure of MOTBY in 1995, restoration projects were underway to identify, characterize, and remediate environmental contamination at MOTBY. The restoration strategy implemented during this period focused on protection of human health and the environment with consideration of continued use of the facility by the U.S. Army. With the closure announcement, the installation's strategy shifted from supporting an active mission to responding to disposal and reuse considerations. MOTBY's environmental strategy was modified to address the new issues of closure and reuse. This strategy has included the completion of the facility-wide EBS and CERFA report under the direction of the United States Army Environmental Center (USAEC).

Upon formation of the BCT, a "bottom-up" review of the restoration strategy for MOTBY was completed. This review is intended to ensure that the appropriate restoration actions and regulatory programs applicable to the areas of environmental contamination are considered, and that all possible fast-track cleanup opportunities will be taken in the restoration program.

The BEC has overall authority for the facility's BRAC environmental restoration program and compliance program strategies. The USAEC and the USACE continue to provide assistance in project management and technical areas to the BEC. MOTBY's BRAC strategy is designed to ensure that all regulatory requirements are met and that adequate and cost-effective restoration activities are implemented as quickly as possible to provide for the expedited disposal and reuse of MOTBY in compliance with U.S. Army and community goals. The current strategy provides for the completion of all site restoration activities on MOTBY by 2001; however, restoration may continue afterwards depending on specific selected remedial technologies (e.g., groundwater remediation, if required, may require a longer time frame for completion).

The overall strategy discussed in this section is divided into the following components: environmental restoration; compliance; natural, historical, and cultural resources conservation; and community involvement. Schedules for the implementation of programs for these components are provided in Section 5.

4.1 Environmental Restoration Program Strategy

There are many methods that provide for the comprehensive investigation or environmental restoration of sites requiring cleanup at MOTBY. One management technique that is often used under the CERCLA environmental restoration program is to identify zones and operable units (OUs).

- Zones are CERCLA investigative designations for geographically contiguous areas that are amenable to management as a single investigative unit.
- OUs are used when developing CERCLA remedial strategies. OUs may be based on geographic area, common media (e.g., soil, groundwater), selected treatment technology, priority, schedule, or other factors as appropriate.

4.1.1 Zone Designations

The parcels identified in the EBS currently function as investigative zones. Information generated as part of the facility-wide RI/FS may generate information that warrants modification of these zones. Table 4-1 shows the relationship between IRP sites, environmental restoration zones (parcels), and OUs.

4.1.2 Operable Unit Designations

OUs have been identified at MOTBY through the RI/FS scoping process. They have been summarized in Table 4-1 and are illustrated in Figure 4-1.

4.1.3 Sequence of Zones or Operable Units

A comprehensive sequencing strategy for zones or OUs is still being developed. A strategy is expected to be developed during the completion of the facility-wide RI/FS. The RI/FS will allow MOTBY to develop a comprehensive overview of potential contamination at the installation. The general strategy will be to place remediation priority on those sites that can be remediated quickly, thereby accelerating reuse. Section 5 presents schedules for the

completion of all BRAC cleanup activities. When a sequencing strategy is developed, the information will be presented in Table 4-2 of future versions of the BCP.

4.1.4 Environmental Restoration Early Actions Strategy

Currently, there are no environmental restoration early actions scheduled at MOTBY. If early actions of this type are identified during the facility-wide RI/FS, a summary of these actions will be provided in Table 4-3 of future versions of the BCP.

4.1.5 Remedy Selection Approach

Remedy selection refers to the selection of cleanup alternatives based on the results of environmental investigations. This process will be performed at MOTBY primarily under the scope of the facility-wide RI/FS; however, it may be performed independently for sites selected for environmental restoration early action, with consideration given to future land-use scenarios. Remedy selection for sites at MOTBY will be in accordance with the methods defined by CERCLA guidance. Under this guidance, the remedy selection process includes the sequential completion of an FS, proposed plan, and decision document.

An FS may focus on the selection of remedies for the entire facility or on selected OUs. As part of an FS, potential remedial technologies are screened based on effectiveness, implementability, and cost. Selected technologies are then compiled into remedial alternatives and analyzed using detailed criteria. These criteria include the overall protection of human health and the environment; compliance with Applicable or Relevant and Appropriate Requirements (ARARs); long-term effectiveness; reduction of toxicity, mobility, or volume; short-term impacts on property reuse during implementation; implementability; cost; and public acceptance.

Proposed plans identify the preferred alternative for each FS performed. Following a comment review and comment period, RODs may be prepared for each alternative to formalize the selection of chosen remedies.

Appendix C is a compilation of RODs developed for sites at MOTBY where remediation will be performed. Appendix D summarizes RODs for sites where no further action is required. As of this version of the BCP, MOTBY has not yet entered into the remedy selection phase, and no proposed plans (PPs) or RODs have been prepared.

4.1.6 Strategy for POL Concerns

In general, petroleum, oil, and lubricant (POL) concerns and restoration strategy will be addressed within the scope of the facility-wide RI/FS. However, certain POL-related sites may be designated zones or OUs and may be remediated via environmental restoration early action. Details of these strategies will be included in future versions of the BCP.

4.2 Compliance Strategy

The BCT is developing an overall compliance strategy to ensure that MOTBY attains and remains in compliance with all federal, state, and DoD regulatory requirements and directives through operation and closure.

Operation compliance activities include management of storage tanks, hazardous substances, hazardous wastes, solid waste, PCBs, wastewater discharges, oil/water separators, pollution prevention, medical waste, air emissions, and all operating permits. These activities will continue to be managed by the MOTBY EMO. The EMO will also manage any cleanup activities associated with compliance that become necessary during closure. All operation activities will be facilitated by Operations and Maintenance Accounts (OMA) funds and Defense Business Operation Funds (DBOF), which are intended to provide funds for all day-to-day activities.

Closure-related issues such as radiation, asbestos, and lead-based paint will be managed under BRAC by USACHPPM through the USACE - New York District or the USAEC. The USACE - Mobile District, will manage the EIS, cultural resources, and natural resources aspects of closure.

As described in Section 3.2, compliance early actions are sometimes used to achieve compliance. Table 4-4 provides a summary of the compliance early actions currently planned for MOTBY.

4.2.1 Storage Tanks

Through two projects initiated before MOTBY was named as a BRAC facility, MOTBY has replaced or upgraded its USTs with secondary containment, overfill protection, high-level alarm systems, and other appropriate protection devices. At this point, most to all tanks have either been removed or replaced with state-of-the-art ASTs or upgraded with high level alarms and overflow protection. These efforts will continue throughout the closure process. In addition, tank tightness testing will be scheduled.

Particular attention is being given to the three USTs at the boiler plant. A remedial action plan for final closure will be developed using information gathered through the RI/FS and supplementary structural engineering assessments.

4.2.2 Hazardous Materials/Waste Management

Materials used at MOTBY will continue to be inventoried for use through the hazardous waste tracking system facilitated by the limited number of satellite accumulation areas around MOTBY. Wastes that accumulate in these other areas are reported to the EMO and subsequently transported to Building 111 to await off-site disposal. MOTBY uses Building 111 as its 90-day storage facility. Disposal of wastes is provided either through the DRMO or through a private waste disposal contractor procured by the EMO. Satellite accumulation areas generally include vehicle and equipment maintenance shops, photographic and X-ray laboratories, and dispensaries.

4.2.3 Solid Waste Management

MOTBY currently has a contract in place to manage its solid waste disposal. Until Army operations at the facility cease, MOTBY will maintain its contract for solid waste pick-up and removal at the necessary level for Army activities, which may change as operations diminish.

4.2.4 Polychlorinated Biphenyls

Since February 1994, no PCB transformers have reportedly been in use at MOTBY; therefore, no compliance activities for PCBs are planned. A review schedule for PCB transformers was initiated in early 1997. It is intended to show when these were identified all across the base, when they were removed, and what was done subsequently in terms of testing or remedial activities. However, during final closure activities for the facility, all electrical equipment at MOTBY will be certified to be free of PCBs.

4.2.5 Asbestos

In 1992, a comprehensive basewide survey for asbestos was completed. Since 1992, MOTBY has conducted several ACM abatement projects in association with the demolition or maintenance of buildings around the facility. These activities will continue and will include the removal of friable asbestos from all structures on the facility. Funding for targeted asbestos removal in four buildings has been identified. Friable asbestos will only be removed

if it presents an immediate hazard to people currently working at or using the base. No action toward non-friable asbestos or non-friable ACM is planned. Asbestos in abandoned buildings will become disclosure items for inclusion in any deed of transfer or sale.

4.2.6 Radon

Compliance actions for radon are not required at MOTBY. A radon survey performed at MOTBY in 1990 did not indicate the presence of radon.

4.2.7 Wastewater and Storm Water Discharges

Monitoring (and associated operations) of wastewater discharges at MOTBY are currently authorized under two separate but specific NJPDES permits. Although the use and operation of the facility is changing, MOTBY will maintain its permits until operations cease.

Storm water discharges from MOTBY are permitted under a general NJPDES permit. In accordance with this permit, MOTBY will continue to maintain its operations according to its SPPP.

4.2.8 Oil/Water Separators

MOTBY has started to plan the removal and cleanup of some of its existing oil/water separators. Until removal, MOTBY will register its active oil/water separators with NJDEP. Other oil/water separators will be evaluated for further action.

4.2.9 Pollution Prevention

MOTBY will implement pollution prevention activities according to its Pollution Prevention Plan when the plan is completed. When feasible, MOTBY will adopt operational changes to work activities to ensure that pollution prevention is maximized.

4.2.10 Radioactive Substances

Radioactive substances will continue to be monitored by the Safety Office of the 1301st Port Command, which maintains two locations for the storage of these substances prior to their shipment. A comprehensive radiation close-out survey is scheduled for the fiscal year 1998.

4.2.11 Lead-Based Paint

A lead-based paint survey for family housing and around the facility has been scheduled for the 1997 fiscal year. Once delineated, lead-based paint will be remediated according to all applicable guidance. Lead-based paint will be considered for removal only if presenting an immediate hazard to people currently working on or using the base. No action will be taken to remove lead from abandoned buildings. This will become a disclosure item for inclusion in any deed of transfer or sale.

4.2.12 Medical Waste

There are two medical facilities at MOTBY. Medical waste from the Army clinic is transported to Fort Monmouth for incineration. The disposal for waste generated at the MSC facility is managed through a medical waste contractor. These methods of medical waste management are expected to be maintained until these operations at MOTBY are terminated.

4.2.13 Air Emissions and Permits

In its efforts to attain and maintain compliance, MOTBY will submit an air emissions inventory each year until final operations are terminated. In addition, operations and equipment will be modified as necessary to meet current and future requirements as stipulated in its Title V Permit. The Title V Operating Permit material prepared by MOTBY was deemed administratively complete and the package was submitted to NJDEP on February 15, 1997 for the Technical Review Process. This will be completed in mid-1997.

MOTBY is retrofitting its boilers at its main boiler plant and modifying remote boilers for natural gas in order to comply with its Title V Operating Permit.

4.2.14 Pesticide Management

The use of pesticides by the Army at MOTBY will continue commensurate with Army activities. For this reason, the DPW is revising MOTBY's Pesticide Management Plan. Future pesticide control practices will be implemented according to this plan.

4.3 Natural, Historical, and Cultural Resources Conservation Strategy

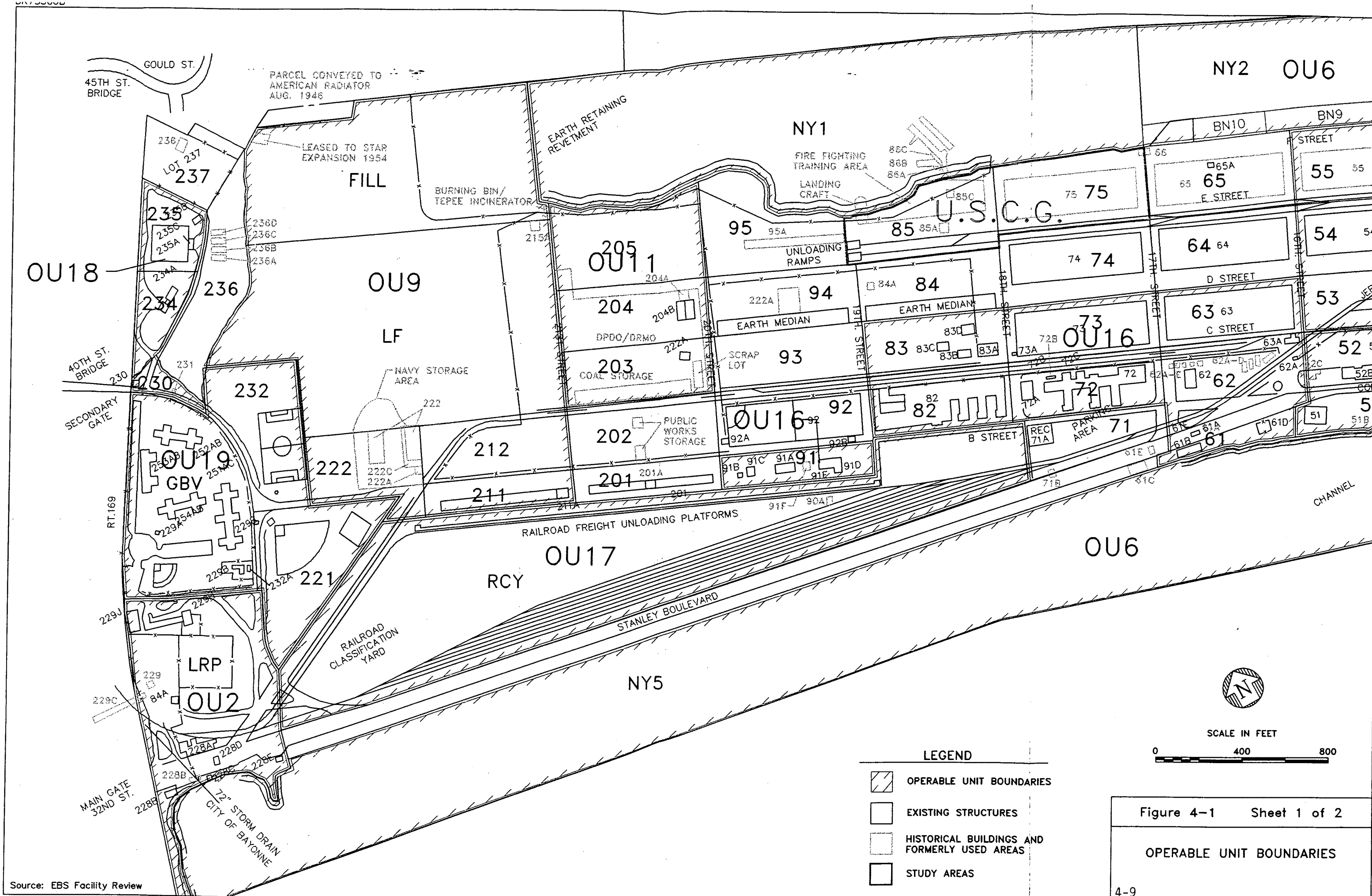
Currently, natural, historical, and cultural resources are under evaluation by two contractors. A draft report on the cultural and historical resources is currently undergoing an internal review. Prior to being submitted to the New Jersey State Historical Preservation

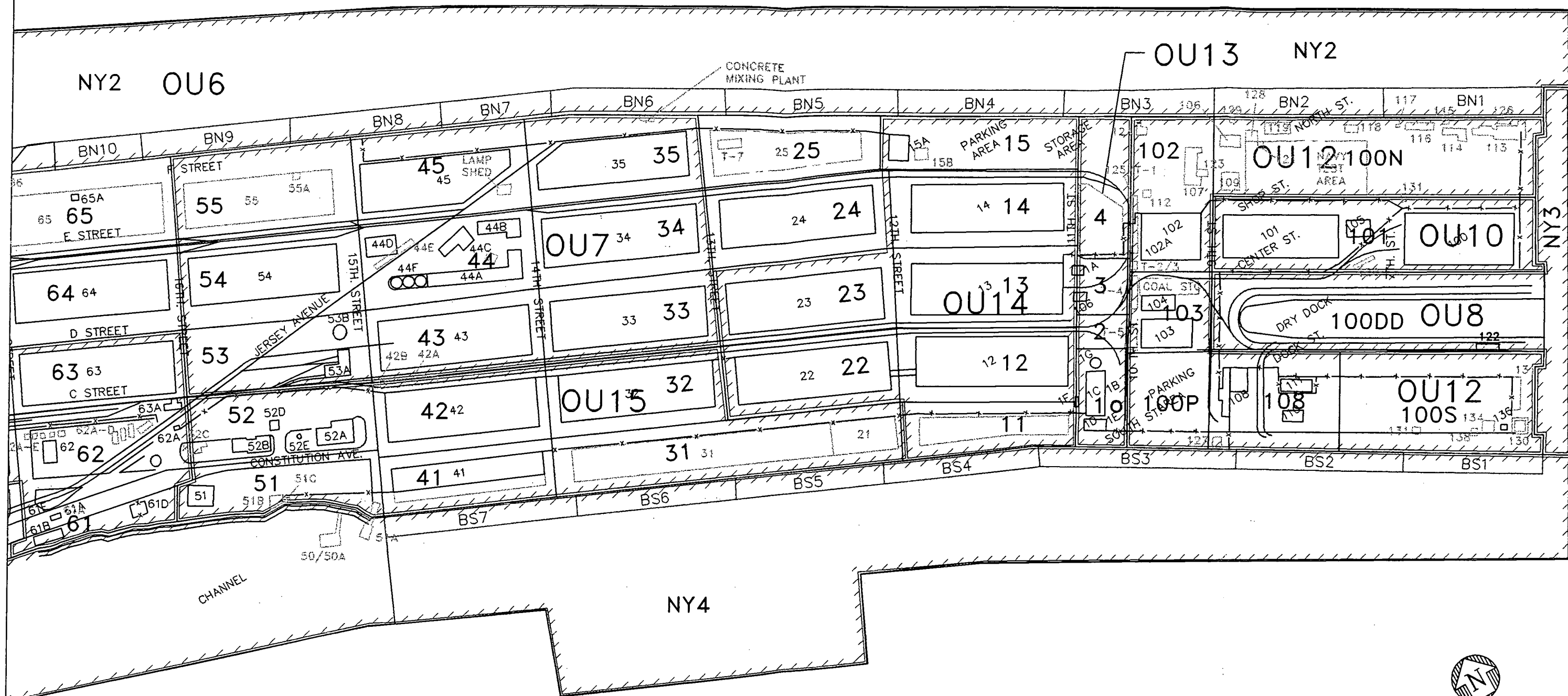
Officer for review in June 1997. A final report is anticipated in late 1997. At this time, a NEPA schedule will be developed after the reuse concept plan is made available to MOTBY in October 1997. It is not yet clear whether a conservation management plan will be required for the site. A summary of these resources will be provided in the EIS to be prepared as part of the NEPA process. This process was initiated on May 2, 1996, and while it typically requires 18 to 24 months for completion, the date may slip by three to four months as a result in the change in due dates for the reuse concept plan. In future versions of the BCP, strategies for the management of these resources will be included in this section.

4.4 Community Involvement Strategy

The BCT will work to maintain public involvement in the BRAC process. Their activities will include:

- Ensuring that the RAB is up to date on all issues of the BRAC process including restoration and compliance strategies and activities in these areas;
- Issuing press releases two weeks in advance to announce any event that requires public input;
- Holding periodic public meetings during the BRAC process, as needed;
- Maintaining information repositories at the MOTBY and Bayonne Public Libraries; and
- Responding to public inquiries in a proactive manner.









- LEGEND**
-  OPERABLE UNIT BOUNDARIES
 -  EXISTING STRUCTURES
 -  HISTORICAL BUILDINGS AND FORMERLY USED AREAS
 -  STUDY AREAS

Figure 4-1 Sheet 2 of 2

OPERABLE UNIT BOUNDARIES

4-11

Table 4-1 RELATIONSHIP BETWEEN IRP SITES, OPERABLE UNITS, AND STUDY AREAS			
OU Number	OU Name	Associated Study Areas	Associated IRP Sites
3	Facility-wide Mapping	All	--
4	Historic Fill Research	All	--
5	Facility-wide Hydrogeological Characterization	All	--
6	Facility-wide Spot Sanitary Sewer and Storm Drain Systems Survey	All	--
7	Gas Station/Boiler Plant	33, 34, 35, 43, 44, 45, 53, 54, 55	3, 5, 10
8	Dry Dock	100DD, NY3	--
9	Landfill	LF, 211, 212, 222, Fill	1, 2
10	Lot 101	101	3, 6, 7
11	DRMO	203, 204, 205	4, 9
12	Dry Dock Support Area	100N, 100P, 100S, 102, 103, 108	3
13	Sewage Treatment Plant Area	1, 2, 3, 4	--
14	Eastern Warehouse Area	11, 12, 13, 14, 15, 22, 23	--
15	Command Center	31, 32, 41, 42, 51, 52	--
16	MTMC Command Center	61, 62, 63, 72, 73, 82, 83, 91	--
17	Railroad Classification Yard	RCY	--
19	Civilian Use Areas	221, 232, GBV	--

Table 4-2
PLANNED CLEANUP SEQUENCE

The cleanup sequence of parcels has not yet been determined. This information is contingent upon the information and data generated during the facility-wide RI/FS. When this information becomes available, it will be disclosed in future BCP versions.

Table 4-3
PLANNED ENVIRONMENTAL RESTORATION EARLY ACTIONS

Currently, no early actions for environmental restoration have been planned. This table will summarize any environmental restoration early actions identified during the RI/FS process in future versions of the BCP.

Table 4-4				
PLANNED COMPLIANCE EARLY ACTIONS				
Location	Concern	Action	Purpose	Schedule
Building 82	USTs	Install overfill protection.	Source control, meet regulatory requirements	Early FY1997
Area 44F	ASTs	Install high-level alarms.	Meet regulatory requirements.	Early FY1997
Building 44C	Air emissions	Retrofit boilers with air pollution control equipment	Meet regulatory requirements and permit conditions.	Early FY1997
Building 254AB	Air emissions	Retrofit boilers for natural gas.	Meet regulatory requirements.	FY1997
Facility-wide	Clean Water Act	Develop and implement backflow and cross connection control program	Meet State drinking water monitoring requirements.	FY1997

The master schedules and fiscal year requirements for BRAC cleanup are segregated into three programs discussed in Sections 5.1 through 5.3: environmental restoration; compliance; and natural, historical, and cultural resources. The schedule for environmental restoration is presented in Figure 5-1. The schedules for compliance activities are presented in Figures 5-2 and 5-3. Figure 5-4 presents the schedules for natural, historical, and cultural resources programs. Section 5.4 describes the BCT and Project Team meeting schedule as summarized in Table 5-1.

Each schedule has been developed using *Project Scheduler 6 for Windows*®. The software package normally uses critical path analysis to determine the display of all information entered into the "project", which in this case represents each of the four schedules. However, for the purposes of this BCP, the display of information was maintained at a basic level and some of the elements at the bottom of each schedule were not used.

Important elements include:

- **Critical.** A task whose duration cannot be increased without delaying the completion of the project. For this BCP, all tasks were considered critical.
- **Complete.** The measure of the task deemed to be complete.
- **Summary.** A task which consists of multiple critical tasks, usually those tasks which are recurrent.
- **Milestone (Critical, Complete).** An event of zero duration that represents a start, end, or deliverable result of a task.
- **Baseline.** The projected start and finish dates of a task or subtask. The baseline provides a basis for comparison for the overall progress or scope of the task or subtask.

Other guidelines which were used to create the schedules presented in this section include:

- All start and finish dates were based either on actual task specific dates or projections from contractors or the BEC. Fiscal year funding projections were also used to determine start and finish timeframes. In these circumstances, the task was projected to begin at the starting date of the fiscal year and to be complete on the last date of the fiscal year. For example, funds have been allocated in the 1997 fiscal year for the upgrade of the boilers at Building 44C. The start date for this task was set at October 1, 1996 and the finish date was set at September 30, 1997. If more precise dates are available, they have been used.
- For recurring tasks, an estimated amount of time was "scheduled" near the beginning of each time period for which the task must be completed. For instance, the renewal of tank registrations must be completed on an annual basis. For this task, an estimated time period of one week was scheduled during the second week of January in each year.
- Maintenance-type tasks were scheduled to cover the entire applicable time period.

5.1 Environmental Restoration Program

5.1.1 Environmental Restoration Schedule

MOTBY is currently entering into a remedial investigation phase highlighted by a facility-wide RI/FS and, possibly, remedial actions. The environmental restoration schedule is presented in Figure 5-1. Because environmental restoration is contingent upon updated information, the schedule for these activities is subject to change.

5.1.2 Requirements by Fiscal Year

Appendix A provides a detailed summary of funding requirements for environmental restoration activities, organized by fiscal year. These requirements are based on the schedule provided in Figure 5-1.

5.2 Compliance Programs

5.2.1 Compliance Schedules

Compliance activities can be differentiated into two areas, those which are operation-related and those which are closure-related. Figure 5-2 is the master schedule for operation-

related compliance activities, and Figure 5-3 is the master schedule for closure-related compliance activities. Note that the schedules are preliminary and subject to change.

5.2.2 Requirements by Fiscal Year

Appendix A provides a detailed summary of funding requirements for compliance activities, organized by fiscal year. These requirements are based on the schedules provided in Figures 5-2 and 5-3.

5.3 Natural, Historical, and Cultural Resources Programs

5.3.1 Natural, Historical, and Cultural Resources Schedule

Strategies for natural, historical, and cultural resources conservation at MOTBY are currently under consideration. The schedules for the EIS and natural, historical, and cultural resources programs are provided in Figure 5-4. Note the schedules are preliminary and subject to change.

5.3.2 Requirements by Fiscal Year

Appendix A provides a detailed summary of funding requirements for natural, historical, and cultural resources activities, organized by fiscal year. These requirements are based on schedules provided in Figure 5-4.

5.4 BCT/Project Team Meeting Schedule

The BCT and project team have been formed to facilitate the BRAC process at MOTBY. Since inception, the group has maintained a meeting schedule of one meeting per calendar month. The group intends to maintain this schedule throughout the production of versions 1 and 2 of the BCP, with few variances. However, once the RI/FS and remedial activities are initiated, the schedule may be subject to change.

Figure 5-1

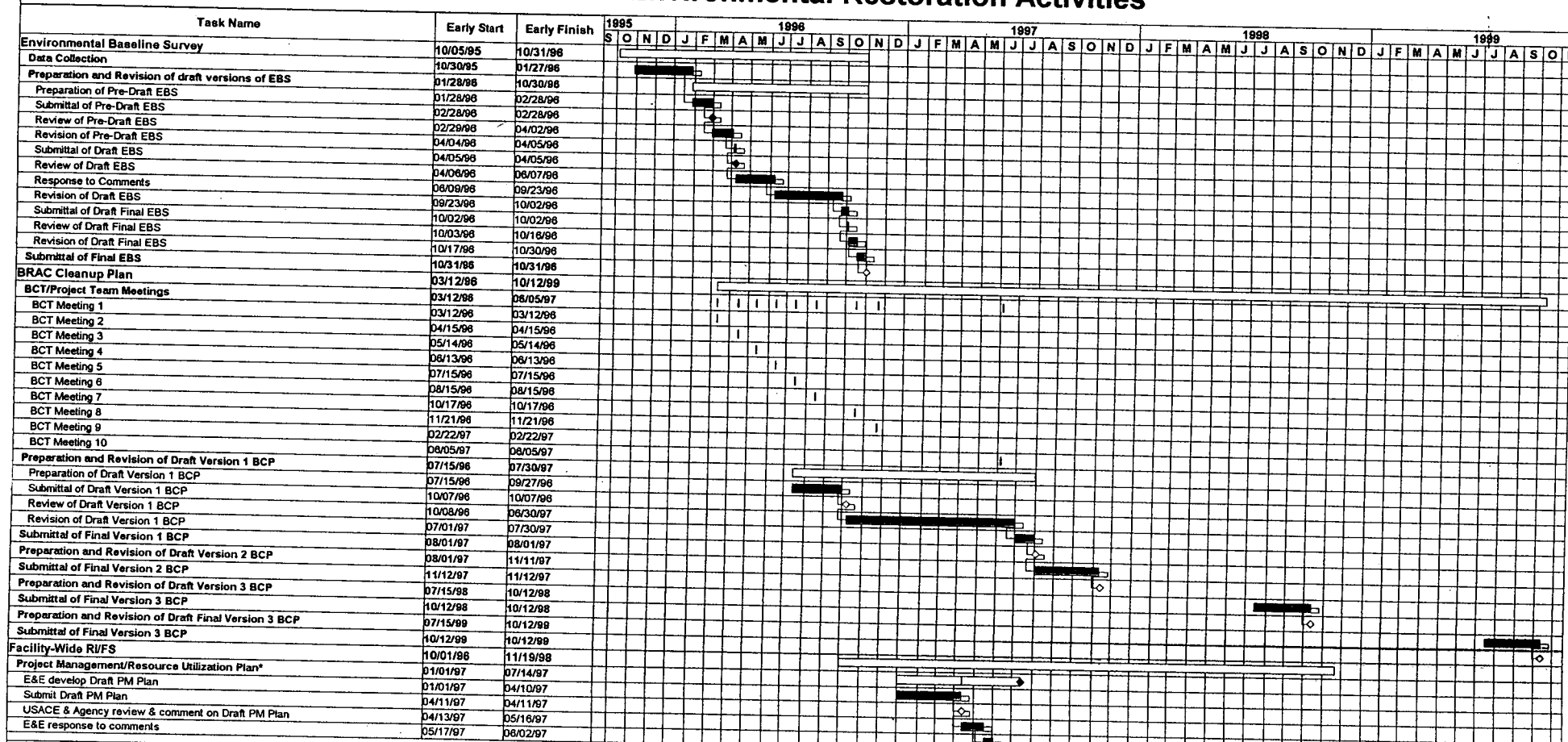
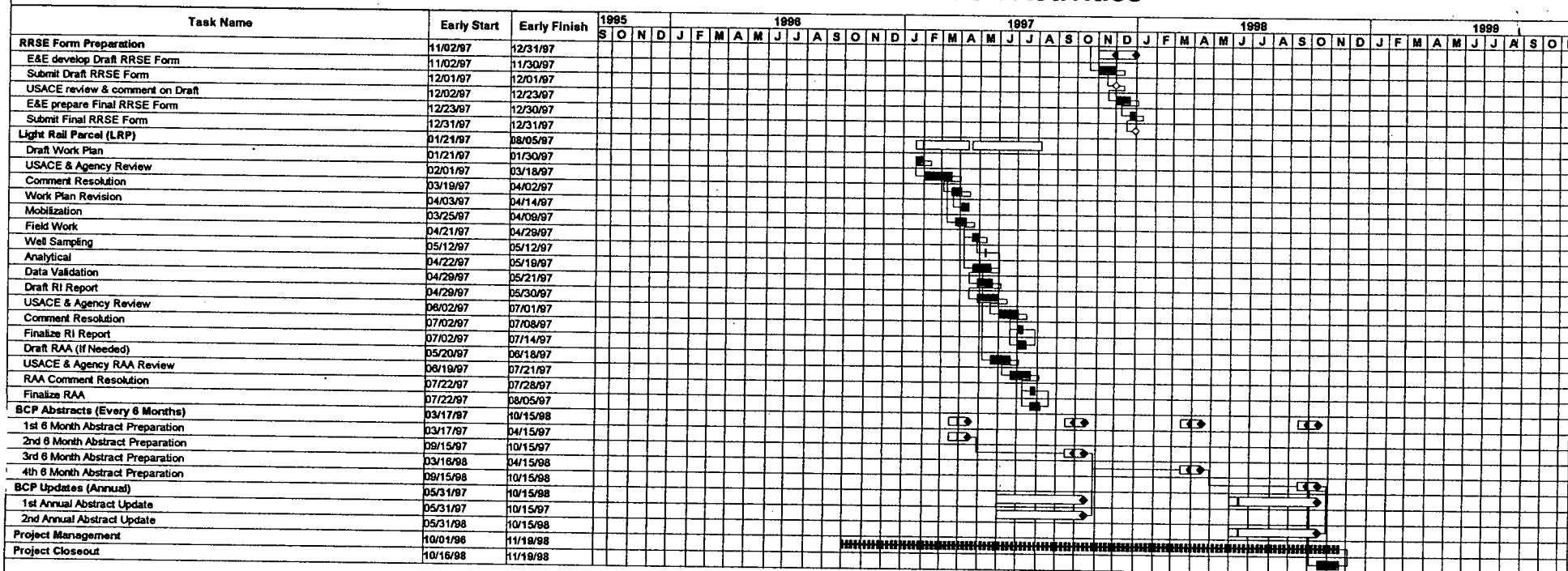


Figure 5-1



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5-10



Figure 5-3 Schedule for Closure-Related Compliance Activities

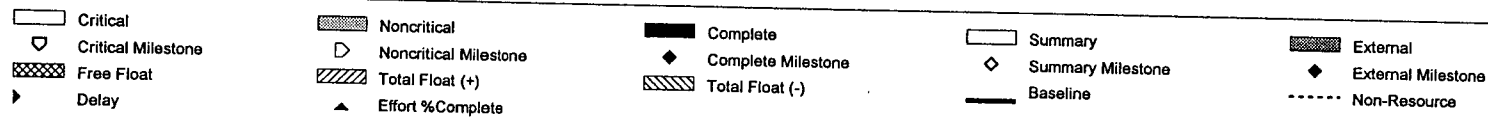
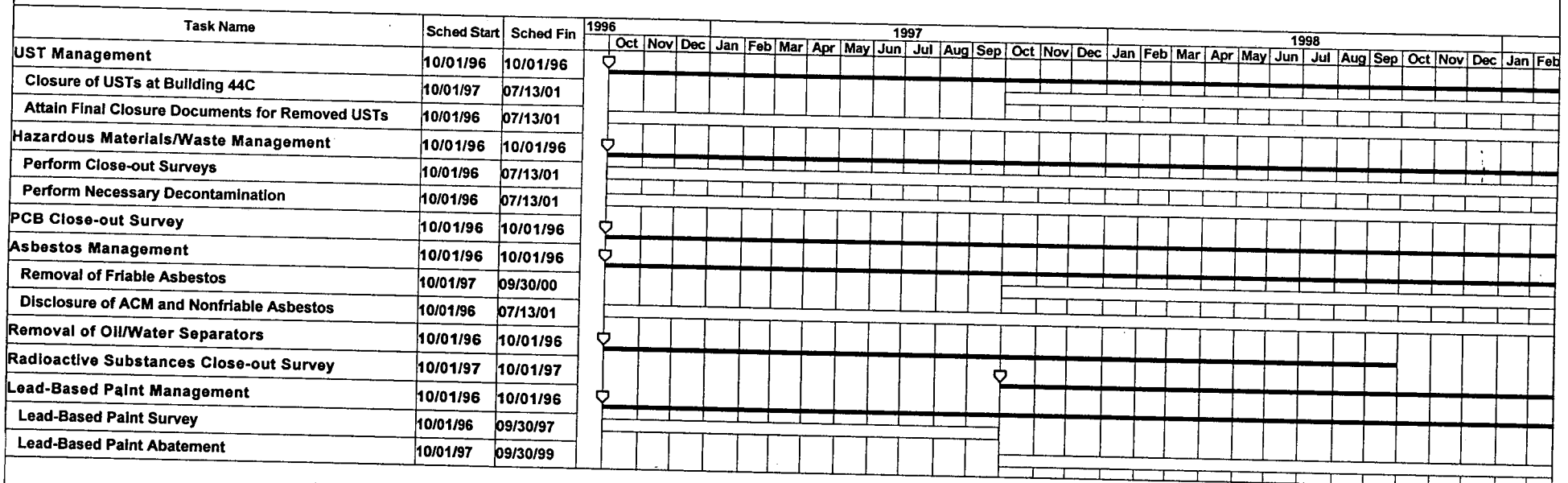


Figure 5-3 Schedule for Closure-Related Compliance Activities

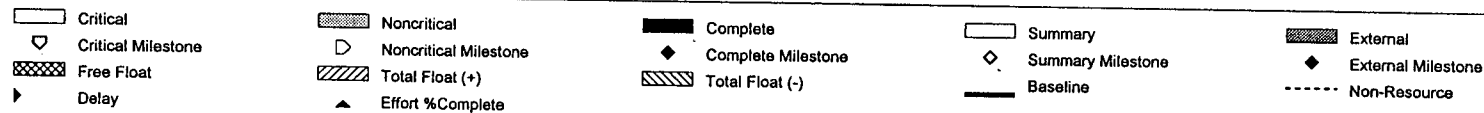
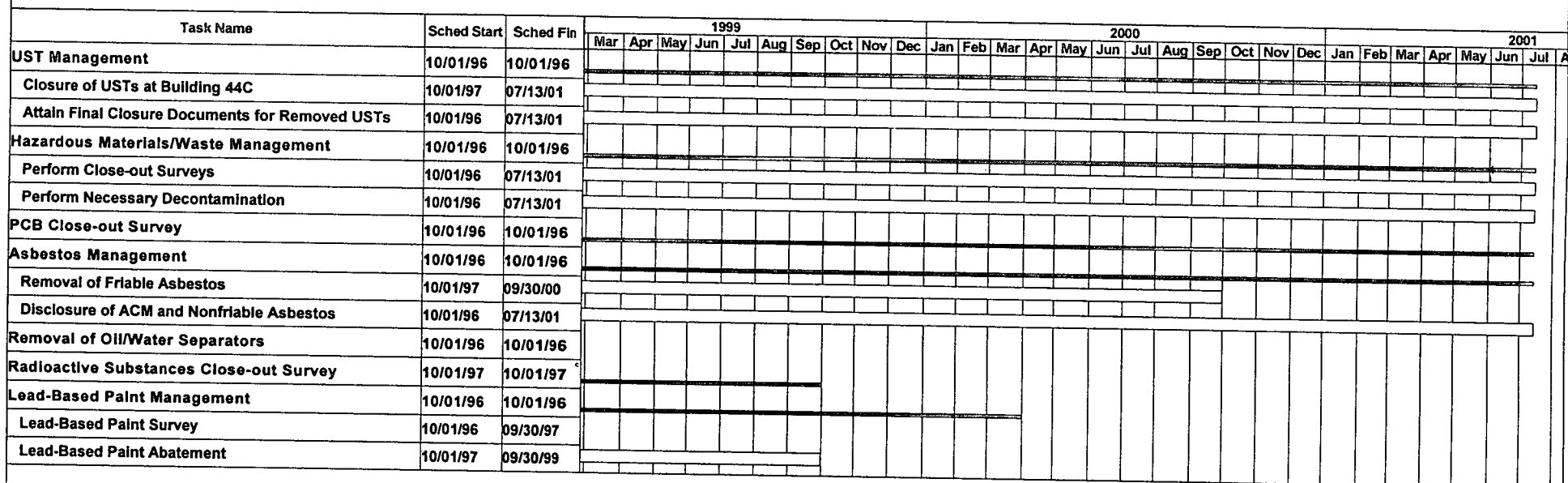


Figure 5-4
Schedule for Historical, Natural, and Cultural Resources Activities

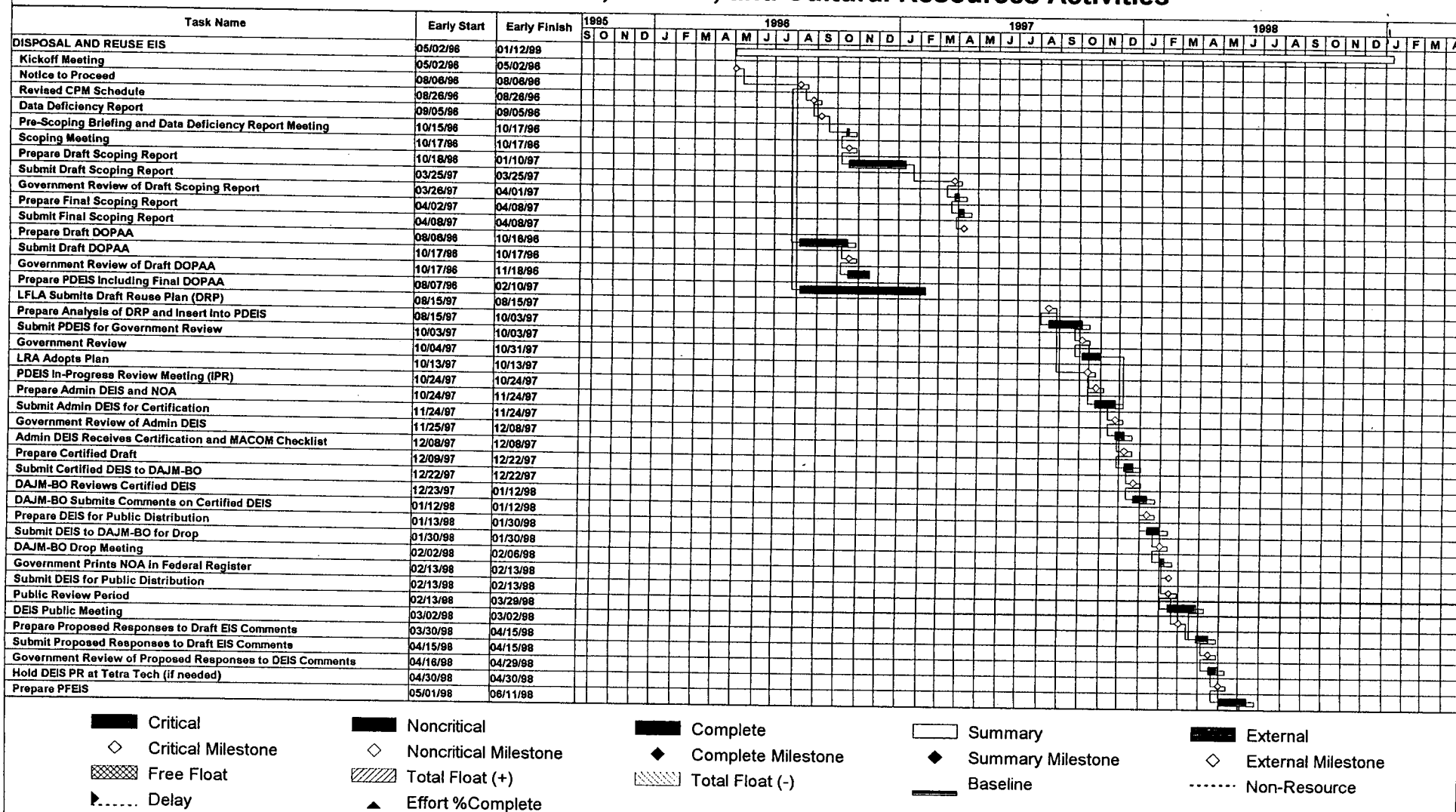
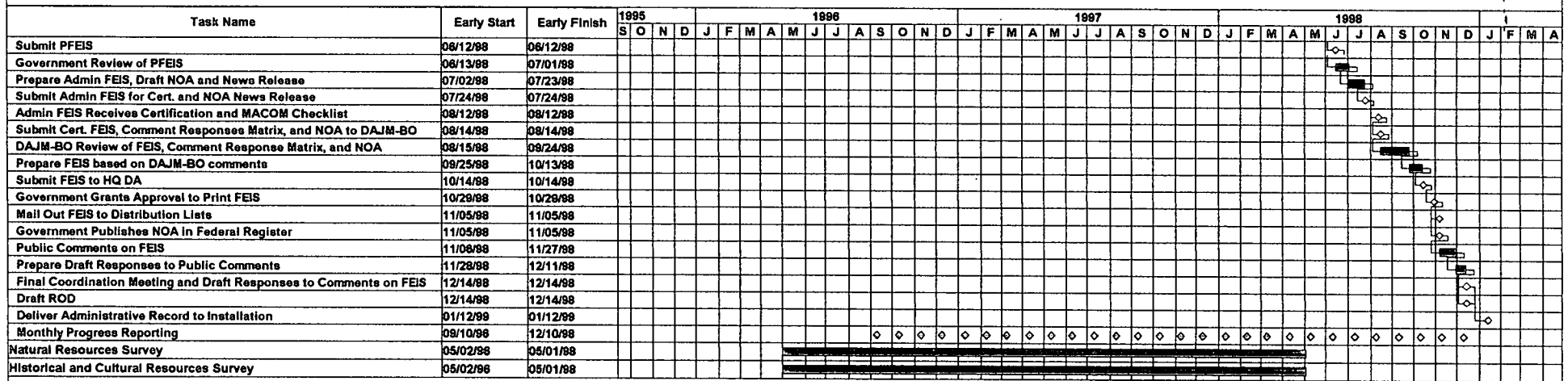


Figure 5-4

Schedule for Historical, Natural, and Cultural Resources Activities



- Critical
- Critical Milestone
- Free Float
- Delay
- Noncritical
- Noncritical Milestone
- Total Float (+)
- Effort %Complete
- Complete
- Complete Milestone
- Total Float (-)
- Summary
- Summary Milestone
- Baseline
- External
- External Milestone
- Non-Resource

Table 5-1	
BCT/PROJECT TEAM MEETING SUMMARY	
Date	Topics
March 12, 1996	Purpose and requirements of BCP, data available from EBS, and role of the BCT.
May 14, 1996	BCT meeting schedule, strategy for completing BCT Bottom Up review, and Bottom Up review items.
June 13, 1996	RAB interaction, EBS issues, and Bottom Up review items.
July 15, 1996	Bottom Up review items.
August 15, 1996	ECOP for transfer of property to USCG, fast track cleanup of LRP, strategy for parcel 44, operable units, ARARs, and the RI/FS.
October 17, 1996	Clean up of LRP, ECOP for property to be transferred to USCG, and strategy for performing fast-track cleanups.

6 Technical and Other Issues to be Resolved

This section is designed to provide quick reference for select technical and other issues which must be addressed to facilitate the BRAC process. For each issue, the rationale, status, and strategy are provided.

6.1 Data Usability

Data usability refers to the applicability of historic data from environmental investigations and compliance activities to support decision making during the BRAC process.

6.1.1 Rationale

A review of data collected to date for usability is required because historical data can support risk assessments and provide a basis for evaluating the performance of remedial actions by filling data gaps.

6.1.2 Status/Strategy

At this time, NJDEP has declared that some of the data collected during the Dames & Moore RI is unusable to support decision making. No other data have been reviewed for usability.

The BCT will work toward assembling a technical review team to develop a comprehensive quality assurance/quality control (QA/QC) program to be used in evaluating historic data and for the RI/FS.

6.2 Data Integration and Management

Efficient and effective management of information is critical to the success of the closure process. Types of information that need to be managed include:

- CERFA-related and real estate-type data;
- Data from environmental restoration and compliance activities;
- Environmental investigation chemical, physical, and biological data;
- Decision-related data relevant to the proceedings of the BCT and its project team; and
- Deliverables from environmental restoration or compliance projects.

6.2.1 Rationale

The ability to efficiently share data among all responsible agencies, contractors, and community groups during restoration and compliance efforts is important to ensure proper decision making. As the number of these different parties grows, the task of sharing information will become increasingly difficult. Proper planning and standardization can help to eliminate inefficiency in the future.

6.2.2 Status/Strategy

In order to facilitate information transfer, information repositories are being established at the MOTBY and Bayonne Public Libraries. These repositories will include minutes from RAB meetings, copies of investigative reports requested by the community, all versions of the BCP, and all press releases announcing public participation events.

In addition, the BCT will work toward establishing a database protocol for all future contractors to use to ensure compatibility and availability of historic and future data.

6.3 Data Gaps

Data gaps refer to information and data needed to resolve environmental restoration issues.

6.3.1 Rationale

Identification, resolution, and analysis of data gaps permits allows for the development of comprehensive planning of environmental restoration activities such as risk assessments, site characterizations, and feasibility studies.

6.3.2 Status/Strategy

Initial data gaps were identified during the facility-wide EBS. These issues will be resolved during the pending RI/FS.

6.4 Background Concentrations

Background concentrations refer to the ambient concentrations of chemicals in media of interest and are affected by natural media composition and man-made sources other than those of interest to the site being evaluated.

6.4.1 Rationale

Establishing background concentrations is critical because they are used to:

- Distinguish site-related contamination from naturally occurring or other non-site related concentrations of chemicals;
- Establish an assessment of risk posed by a site to human health and to the surrounding ecology; and
- Select remedial actions necessary to protect human and ecological health.

6.4.2 Status/Strategy

At this time, background concentrations have not been established for any media. This task will be addressed during the RI/FS effort.

6.5 Risk Assessment

Risk assessments refer to the consistent process by which threats to human health and the environment are evaluated and documented. The risk assessment process was established as a result of the mandate required by CERCLA and is integral to the RI/FS process.

6.5.1 Rationale

Risk assessments are used to provide the information necessary to assist decision making at sites under investigation. The types of information determined by the risk assessment process includes:

- An analysis of baseline risks to determine the need for action at sites;

- A basis for determining the maximum levels of chemicals that can remain on site without an unacceptable level of risk to human or ecological health; and
- Data necessary to compare and select remedial action alternatives.

6.5.2 Status/Strategy

The NJDEP does not require a baseline human health risk assessment to evaluate potentially contaminated sites. Instead, analytical results generated during site investigations will be compared directly against NJDEP cleanup criteria. This process is considered acceptable by NJDEP because the cleanup criteria were developed based on acceptable risk factors. Therefore, a human health risk assessment has not been proposed for MOTBY.

The need for ecological risk assessments are considered on a case-by-case basis by NJDEP. Thus far, an ecological risk assessment has not been proposed for MOTBY.

6.6 Remedial Actions Strategy

Remedial actions are cleanup initiatives which can be implemented on a facility-wide or site-specific basis.

6.6.1 Rationale

Remedial actions conducted on a facility-wide basis are often more cost-effective due to management and contaminant migration considerations. Site-specific remedial actions can also be performed based on site characteristics and disposal priorities.

6.6.2 Status/Strategy

Previously, environmental restoration projects have been completed based on the continued use of the facility. Site-specific remedial actions have been performed to maintain operational regulatory compliance. As of the closure announcement, the strategy has shifted to responding to disposal and reuse considerations. Completed remedial actions are identified in Section 3.

The overall strategy environmental restoration under BRAC is detailed in Section 4 and project schedules are presented in Section 5. A facility-wide RI/FS is planned to begin in late 1996. As part of the RI/FS, several OUs may be developed to facilitate the coordination of investigations and remedial actions. Based on the results of the RI, remedial alternatives will be developed in the FS. Some remedial alternatives may include remedial actions to be implemented facility-wide.

6.7 Monitoring of Groundwater or Surface Water

Monitoring of groundwater or surface water refers to the sampling and analysis of these media performed on an interim or long-term basis.

6.7.1 Rationale

Groundwater and surface water monitoring can be performed to: determine the potential impact of on-site sources on groundwater or surface water; evaluate the potential migration of contaminants onto or from the facility; evaluate the potential migration of contaminants within the facility; and determine if cleanup levels have been achieved via remedial actions (e.g., groundwater pump-and-treat system).

6.7.2 Status/Strategy

There are 28 existing groundwater monitoring wells installed to assess contamination in groundwater at MOTBY. Most were installed and sampled during the 1991 Dames & Moore RI. Additional wells will be installed and sampled during the impending facility-wide RI/FS. Surface water monitoring may also occur during the RI/FS. Results of the RI/FS will be used to evaluate the need for any additional monitoring of groundwater or surface water.

6.8 Excavation of Contaminated Materials

Excavation of contaminated materials may be performed as part of a remedial action.

6.8.1 Rationale

Excavation is a remedial technology which may be considered when selecting remedial alternatives. The feasibility of excavation as a remedial technology relies heavily on the volume of contaminated material, cleanup levels, disposal requirements, and cost of transportation.

6.8.2 Status/Strategy

The BRAC process at MOTBY is entering an investigative phase consisting of a facility-wide RI/FS and possibly select site-specific early actions. As remedial alternatives are developed and subject to feasibility analyses, the excavation of contaminated material will be considered when applicable.

Some of the excavations conducted at MOTBY to date are summarized below.

- Thirty-two petroleum USTs and associated contaminated soil have been removed at MOTBY. The USTs contained fuel oil, gasoline, diesel, or waste oil. At 10 of the removed UST sites, additional investigation or remedial action has been recommended. Additional investigation and potential remedial action (e.g., soil excavation) will be conducted under the facility-wide RI/FS or early actions.
- In 1992, approximately 32 tons of petroleum-contaminated soil were removed from the former drum storage area immediately northeast of Building 105. The drums reportedly contained waste oils and other liquid wastes. Additional investigation is expected to be performed under the facility-wide RI/FS.
- In 1983 and 1984, soil was removed to a depth of 2 to 3 feet in the vicinity of the transformer area adjacent to Building 105. Excavation was conducted due to the release of transformer fluid. The site was later investigated as part of the Dames & Moore RI. Additional investigation is required by NJDEP.
- In 1988, approximately 25 tons of contaminated soil were removed following a spill of No. 6 fuel oil outside Building 44C.
- In 1991, a leaking transformer released PCB-oil to the surface soil at Lot 55. Sixteen drums of contaminated soil were transported off site for disposal.

6.9 Protocols for Remedial Design Reviews

Remedial designs (RDs) are detailed engineering plans for selected remedial alternatives.

6.9.1 Rationale

Remedial designs must be reviewed to ensure that the plans are technically complete, feasible, and meet the objectives of the decision document. An established protocol for the review of RDs will ensure that reviews are complete and consistent.

6.9.2 Status/Strategy

No remedial designs have been prepared for MOTBY. As a result, a specific protocol has not been developed for the review of RDs. Before review of remedial alternatives for MOTBY is started, the BCT and its project team will work to establish a remedial design review protocol.

6.10 Conceptual Models

Conceptual models are used to identify potential contaminant sources, exposure media, exposure routes, and receptor populations.

6.10.1 Rationale

Conceptual models can be presented in the form of visual illustrations or trend analyses of data. These models can be used to simulate future site conditions to understand impact scenarios and thus aid in the decision-making process.

6.10.2 Status/Strategy

At this time, no conceptual models have been developed. Summaries of conceptual models, if developed during the RI/FS, will be provided in Appendix E in future versions of the BCP.

6.11 Cleanup Levels

Cleanup levels are chemical concentrations to which media must be remediated to protect human health or the environment. Cleanup levels can vary based on chemicals, location, and media. In New Jersey, standardized cleanup levels, to be applied generically, have been created with consideration of risk-based factors using a statistical model.

6.11.1 Rationale

In conjunction with a risk assessment, cleanup levels are used to identify remedial goals and the remedial alternatives to achieve these goals.

6.11.2 Status/Strategy

Cleanup levels for MOTBY have not been established. These levels will be defined during the scoping of the RI/FS, and then refined during the RI. Consideration of probable future reuse scenarios for individual parcels may require further refinement of the cleanup levels to develop site-specific cleanup levels. The NJDEP soil cleanup criteria for organic and inorganic compounds are provided in Tables 6-1 and 6-2.

6.12 Initiatives for Accelerating Cleanup

Initiatives for accelerating cleanup are always under consideration to provide for accelerated disposal of MOTBY property.

6.12.1 Rationale

Initiatives for accelerating cleanup of parcels are designed to promote the federal government's directive to achieve early disposal and reuse of BRAC property.

6.12.2 Status/Strategy

Several initiatives have been implemented to foster expedited cleanup of BRAC parcels at MOTBY.

- **Regulatory Involvement.** The BCT and project team have been formed and include one representative from the EPA and three representatives from NJDEP. Early involvement of regulatory agencies will help to eliminate future delays in regulatory approvals.
- **Defined Document Review Periods and Concurrent Review.** USACE and regulatory agency document review periods have been defined and will be refined throughout the BRAC process as necessary to expedite approval.
- **Community Involvement.** A RAB has been formed which consists of 10 members, including seven residents from the City of Bayonne and three Army representatives. The RAB acts as a forum for information exchange between the community, MOTBY, regulatory agencies, and the local redevelopment authority. Currently, the RAB meets quarterly, but has met more frequently during its review of the BRAC EBS.

As the MOTBY BRAC closure process progresses, additional initiatives will be implemented. These include:

- **Early Identification of ARARs.** ARARs associated with cleanup at MOTBY will be developed at the start of the facility-wide RI/FS. ARARs for other BRAC sites in New Jersey will be obtained and modified as appropriate for MOTBY. Early identification of ARARs can streamline the selection of remedial technologies.
- **Innovative Technologies.** Innovative technologies will be considered by USACE, EPA, NJDEP, and remediation contractors.
- **Innovative Contracting.** Flexible contracting methods will be considered as appropriate to facilitate accelerated cleanup.

6.13 Review of Selected Technologies for Application of Expedited Solutions

A review of selected technologies shall be conducted with respect to the expeditious cleanup of BRAC parcels.

6.13.1 Rationale

Expedited cleanups will lead to expedited disposal of BRAC parcels.

6.13.2 Status/Strategy

As of this version of the BCP, no remedial technologies have been selected for MOTBY. The use of innovative technologies will be considered if the time required to complete a remedial action can be reduced from the time required using standard technologies.

Within the FS portion of the facility-wide RI/FS, more than one remedial technology will most likely be selected and considered for remedial alternatives. A detailed analysis of remedial alternatives will then be utilized to consider time as one criterion for selection.

6.14 Hot Spot Removals

Hot spots refer to areas of environmental contamination which pose an immediate threat to human health or the environment, and require immediate remedial action. The rationale, status, and strategy associated with hot spot removals is described below.

6.14.1 Rationale

Hot spot removals are usually performed as early actions, thereby expediting the cleanup of parcels and disposal of property.

6.14.2 Status/Strategy

No hot spots have been identified at MOTBY. If hot spots are identified during the RI/FS, appropriate actions will be considered on a case-by-case basis.

6.15 Identification of Clean Properties

Clean properties are parcels of property which are eligible for transfer.

6.15.1 Rationale

Property must be identified as clean prior to closure to allow for the disposal or reuse of the property as required by CERCLA Section 120(h)(4).

6.15.2 Status/Strategy

A CERFA EBS has been developed that identifies CERFA categories (1 through 7) for BRAC parcels based on a review of facility records and inspections. Section 3.4 presents a summary of these results. Parcels assigned categories 5 through 7 are not eligible for disposal. Currently, all parcels at MOTBY are classified as category 7 due to facility-wide concerns. Based on the results of additional investigation and remedial actions, parcels will be reclassified. An Environmental Condition of Property (ECOP) report will be prepared that will describe the basis for all parcel reclassifications.

6.16 Overlapping Phases of the Cleanup Process

This issue refers to the concurrent phases of the Environmental Restoration Program.

6.16.1 Rationale

Overlapping phases of the cleanup process will expedite overall remedial efforts and transfer of BRAC parcels.

6.16.2 Status/Strategy

As shown in the master schedules presented in Section 5, various cleanup activities will occur concurrently. The master schedule will be revised accordingly in future BCP versions.

6.17 Improved Contracting Procedures

6.17.1 Rationale

Improved contracting procedures are essential for efficient and cost-effective environmental restoration work.

6.17.2 Status/Strategy

Currently, fixed-price and cost-plus fixed-fee indefinite delivery order contracting mechanisms are used for environmental restoration work at MOTBY. Through the Environmental Services Program Support, the particular cost-plus fixed-fee contract through which the

EBS and this BCP have been completed, all of the environmental restoration, investigation, risk assessments, laboratory support, and compliance activities inherent to the closure process can be performed. Remedial and removal actions will be funded through fixed-price contracts.

In general, MOTBY is striving to utilize as few contractors as possible in order to minimize oversight and management requirements.

6.18 Interfacing with the Community Reuse Plan

6.18.1 Rationale

The planned reuse of property will dictate cleanup levels required at MOTBY. For example, NJDEP soil cleanup criteria for residential property are more stringent than cleanup criteria for non-residential property. Furthermore, cleanup levels must be considered when evaluating the effectiveness of various technologies considered for remedial actions. As a result, the LR Plan must always be considered when determining cleanup levels and selecting technologies used to perform remedial actions.

6.18.2 Status/Strategy

The LR Plan is scheduled for completion in June 1997. Reuse planning is currently being conducted by the LRA. The LRA will provide information about the planned reuse of property prior to the completion of the LR Plan through the Base Transition Coordinator (BTC) who attends LRA, RAB, and BCT meetings.

6.19 Bias for Cleanup Instead of Studies

6.19.1 Rationale

Early implementation of remedial actions instead of studies can reduce costs by eliminating investigation when unnecessary, and expedite cleanup for property disposal.

6.19.2 Status/Strategy

As of this version of the BCP, no remedial actions have been performed under BRAC. The use of cleanup actions instead of studies will be considered site-by-site using data for the nature and extent of contamination and presumed remedial technologies.

6.20 Expert Input on Contamination and Potential Remedial Actions

Expert input for environmental restoration efforts may be obtained in numerous fields of study. These may include geology, chemistry, hydrology, civil engineering, structural engineering, petroleum engineering, economics, sociology, biology, ecology, and many others.

6.20.1 Rationale

Input from technical experts can provide valuable information concerning the investigation and remediation of contaminated sites.

6.20.2 Status/Strategy

Currently, the BCT and Project Team is represented by MOTBY, EPA, NJDEP, USACE, USAEC, and environmental contractors. Coordination between these representatives will ensure that sound and approved technical approaches are used when developing and implementing remedial actions. The BCT will solicit input from additional experts as necessary.

6.21 Presumptive Remedies

Presumptive remedies refer to proven and reliable remedial technologies associated with specific types of contamination. For example, the presumptive remedy for vadose zone volatile organic compound contamination is soil vapor extraction. The EPA has issued guidance on these remedies.

6.21.1 Rationale

The use of presumptive remedies can reduce costs and streamline the cleanup process by eliminating the need for excessive analysis of remedial alternatives. This practice can also provide for earlier disposal of property.

6.21.2 Status/Strategy

No presumptive remedies have been identified for MOTBY. Presumptive remedies will be considered by the BCT as site investigations proceed and during remedy selection. Remedy selection will be performed under the FS portion of the facility-wide RI/FS and possibly as part of early actions.

6.22 Partnering Initiatives

Partnering refers to the process of fostering cooperation and communication between key players in the BRAC process.

6.22.1 Rationale

Partnering will provide better relationships between involved parties, thereby expediting the BRAC cleanup process.

6.22.2 Status/Strategy

Communication between MOTBY, regulatory agencies, the community, and contractors has been established. Improving the interactive process within the BCT, RAB, and LRA will continue to be a priority throughout the BRAC process.

6.23 Updating the EBS

The facility-wide EBS is intended to be the source of all known environmental information for the installation. The EBS is a multi-functional document which provides the data for CERFA categorization, to support the development of FOSTs and FOSLs, and to support NEPA actions. Updates to this document are required by DoA, although there are no specific time requirements between updates.

6.23.1 Rationale

The CERFA EBS, particularly the sections, tables and figures, which identify the CERFA categorization of parcels, must be continually updated to reflect changes associated with additional site investigations, remedial actions, and property improvements.

6.23.2 Status/Strategy

The draft final CERFA EBS was submitted for review and concurrence in Fall 1996. Future changes to the categorization of parcels will be documented in an ECOP report. The report documents the basis for recategorization (e.g., additional investigations, remedial actions). Site-specific EBS documents may be considered, as per Army guidance, to support the transfer or lease of specific real estate parcels.

6.24 Implementing the Policy for On-site Decision Making

On-site decision making refers to impromptu, but experienced and informed, decisions based on the evolution of unforeseen conditions or circumstances during field activities.

6.24.1 Rationale

An established policy delineating the types of on-site decision making allowed during field efforts can expedite the cleanup process.

6.24.2 Status/Strategy

On-site decision making will be encouraged based on the following initiatives which focus on the goal of expedited fieldwork:

- Continued partnering of respective organizations involved in the BRAC process;
- Shared leadership, joint brainstorming, and decision making to encourage solutions rather than conflicts;
- Responsibility within each organization to keep respective chains-of-command fully informed; and
- Empowerment of contractors to modify plans in the field as conditions change.

Table 6-1 NJDEP SOIL CLEANUP CRITERIA FOR INORGANIC COMPOUNDS (mg/kg)			
Compound Name	CASRN	Residential Direct Contact	Non-Residential Direct Contact
Antimony	7440-36-0	14	340
Arsenic	7440-38-2	20	20
Barium	7440-39-3	700	47,000
Beryllium	7440-41-7	1	1
Cadmium	7440-43-9	1	100
Copper	7440-50-8	600	600
Cyanide	57-12-5	1,100	21,000
Lead	7439-92-1	400	600
Mercury	7439-97-6	14	270
Nickel	7440-02-0	250	2,400
Selenium	7782-49-2	63	3,100
Silver	7440-22-4	110	4,100
Thallium	7440-28-0	2	2
Vanadium	7440-62-2	370	7,100
Zinc	7440-66-6	1,500	1,500

Table 6-2 NJDEP SOIL CLEANUP CRITERIA FOR ORGANIC COMPOUNDS (mg/kg)				
Compound Name	CASRN	Residential Direct Contact	Non-Residential Direct Contact	Impact to Groundwater
Acenaphthene	83-32-9	3,400	10,000	100
Acetone	67-64-1	1,000	1,000	100
Acrylonitrile	107-13-1	1	5	1
Aldrin	309-00-2	0.040	0.17	50
Anthracene	120-12-7	10,000	10,000	100
Benzene	71-43-2	3	13	1
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	205-99-2	0.9	4	50
Benzo(a)anthracene	56-55-3	0.9	4	500
Benzo(a)pyrene (BaP)	50-32-8	0.66	0.66	100
Benzo(k)fluoranthene	207-08-9	0.9	4	500
Benzyl Alcohol	100-51-6	10,000	10,000	50
Bis(2-chloroethyl) ether	111-44-4	0.66	3	10
Bis(2-chloroisopropyl) ether	39638-32-9	2,300	10,000	10
Bis(2-ethylhexyl)phthalate	117-81-7	49	210	100
Bromodichloromethane (Dichlorobromomethane)	75-27-4	11	46	1
Bromoform	75-25-2	86	370	1
Bromomethane	74-83-9	79	1,000	1
2-Butanone (MEK)	78-93-3	1,000	1,000	50
Butylbenzyl phthalate	85-68-7	1,100	10,000	100
Carbon tetrachloride	56-23-5	2	4	1
4-Chloroaniline	106-47-8	230	4,200	
Chlorobenzene	108-90-7	37	680	1
Chloroform	67-66-3	19	28	1
4-Chloro-3-methyl phenol (p-Chloro-m-cresol)	59-50-7	10,000	10,000	100
Chloromethane	74-87-3	520	1,000	10
2-Chlorophenol	95-57-8	280	5,200	10

<p align="center">Table 6-2</p> <p align="center">NJDEP SOIL CLEANUP CRITERIA FOR ORGANIC COMPOUNDS</p> <p align="center">(mg/kg)</p>				
Compound Name	CASRN	Residential Direct Contact	Non-Residential Direct Contact	Impact to Groundwater
Chrysene	218-01-9	9	40	50
4,4'-DDD (p,p'-TDE)	72-54-8	3	12	50
4,4'-DDE	72-55-9	2	9	50
4,4'-DDT	50-29-3	2	9	500
Dibenz(a,h)anthracene	53-70-3	0.66	0.66	100
Dibromochloromethane (Chlorodibromomethane)	124-48-1	110	1,000	1
Di-n-butyl phthalate	84-74-2	5,700	10,000	100
Di-n-octyl phthalate	117-84-0	1,100	10,000	100
1,2-Dichlorobenzene	95-50-1	5,100	10,000	50
1,3-Dichlorobenzene	541-73-1	5,100	10,000	100
1,4-Dichlorobenzene	106-46-7	570	10,000	100
3,3'-Dichlorobenzidine	91-94-1	2	6	100
1,1-Dichloroethane	75-34-3	570	1,000	10
1,2-Dichloroethane	107-06-2	6	24	1
1,1-Dichloroethene	75-35-4	8	150	10
1,2-Dichloroethene (trans)	156-60-5	1,000	1,000	50
1,2-Dichloroethene (cis)	156-59-2	79	1,000	1
2,4-Dichlorophenol	120-83-2	170	3,100	10
1,2-Dichloropropane	78-87-5	10	43	
1,3-Dichloropropene (cis and trans)	542-75-6	4	5	1
Dieldrin	60-57-1	0.042	0.18	50
Diethyl phthalate	84-66-2	10,000	10,000	50
2,4-Dimethyl phenol	105-67-9	1,100	10,000	10
Dimethyl phthalate	131-11-3	10,000	10,000	50
2,4-Dinitrophenol	51-28-5	110	2,100	10
Dinitrotoluene (2,4-/2,6- mixture)	25321-14-6	1	4	10

<p align="center">Table 6-2</p> <p align="center">NJDEP SOIL CLEANUP CRITERIA FOR ORGANIC COMPOUNDS</p> <p align="center">(mg/kg)</p>				
Compound Name	CASRN	Residential Direct Contact	Non-Residential Direct Contact	Impact to Groundwater
Endosulfan	115-29-7	340	6,200	50
Endrin	72-20-8	17	310	50
Ethylbenzene	100-41-4	1,000	1,000	100
Fluoranthene	206-44-0	2,300	10,000	100
Fluorene	86-73-7	2,300	10,000	100
Heptachlor	76-44-8	0.15	0.65	50
Hexachlorobenzene	118-74-1	0.66	2	100
Hexachlorobutadiene	87-68-3	1	21	100
Hexachlorocyclopentadiene	77-47-4	400	7,300	100
Hexachloroethane	67-72-1	6	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	0.9	4	500
Isophorone	78-59-1	1,100	10,000	50
Lindane	58-89-9	0.52	2.2	50
2-Methylphenol	95-48-7	2,800	10,000	
4-Methylphenol	106-44-5	2,800	10,000	
Methoxychlor	72-43-5	280	5,200	50
4-Methyl-2-pentanone (MIBK)	108-10-1	1,000	1,000	50
Methylene chloride	75-09-2	49	210	1
Naphthalene	91-20-3	230	4,200	100
Nitrobenzene	98-95-3	28	520	10
N-Nitrosodiphenylamine	86-30-6	140	600	100
N-Nitrosodi-n-propylamine	621-64-7	0.66	0.66	10
PCBs (polychlorinated biphenyls)	1336-36-3	0.49	2	50
Pentachlorophenol	87-86-5	6	24	100
Phenol	103-92-2	10,000	10,000	50
Pyrene	129-00-0	1,700	10,000	100
Styrene	100-42-5	23	97	100

<p align="center">Table 6-2</p> <p align="center">NJDEP SOIL CLEANUP CRITERIA FOR ORGANIC COMPOUNDS</p> <p align="center">(mg/kg)</p>				
Compound Name	CASRN	Residential Direct Contact	Non-Residential Direct Contact	Impact to Groundwater
1,1,1,2-Tetrachloroethane	630-20-6	170	310	1
1,1,2,2-Tetrachloroethane	79-34-5	34	70	1
Tetrachloroethylene	127-18-4	4	6	1
Toluene	108-88-3	1,000	1,000	500
Toxaphene	8001-35-2	0.10	0.2	50
1,2,4-Trichlorobenzene	120-82-1	68	1,200	100
1,1,1-Trichloroethane	71-53-6	210	1,000	50
1,1,2-Trichloroethane	79-00-5	22	420	1
Trichloroethene (TCE)	79-01-6	23	54	1
2,4,5-Trichlorophenol	95-95-4	5,600	10,000	50
2,4,6-Trichlorophenol	88-06-2	62	270	10
Vinyl chloride	75-01-4	2	7	10
Xylenes (total)	1330-29-7	410	1,000	10

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A Fiscal Year Funding Requirements/Costs

Table A-1									
INSTALLATION BUDGET (\$000)									
Activity	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03- Completion
Restoration	*	1,349	1,698	280	2,551	2,196	1991	2,161	TBD
Compliance	*	*	785	1,712	1,463	713	188	TBD	TBD
Planning	379	285	857	320	310	310	310	TBD	TBD
Management	20	109	162	162	162	162	85	TBD	TBD
TOTAL	399	1,743	3,502	2,474	4,486	3,381	2,574	2,161	TBD

* Not available at this time.

Table A-2

TOTAL HISTORICAL ENVIRONMENTAL PROGRAM FUNDS SUMMARY

Information of historical funding expenditures was unavailable for this version of the BCP. This information will be provided in subsequent versions of the BCP.

B Installation Environmental Projects Documents Summary Tables

Table B-1 HISTORY OF ENVIRONMENTAL PROJECTS AT MOTBY		
Project/Report Title	Agency/Contractor	Date of Report
Annual Inspection Summary of Naval Supply Depot, Bayonne	Department of the Navy, Bureau of Yards and Docks	October 1, 1956
Preliminary Air Pollution Engineering Survey No. 21-025-71	USAEHA	February 10, 1971
Inspection Report of the Naval Fire Fighting Facility (85/101)	NJDEP	February 9, 1973
Environmental Assessment No. 24-1402-77	USAEHA	June 1, 1976
Air Pollutant Emissions Report for MOTBY	EPA, Region II	September 16, 1976
Environmental Evaluation Report on Emission	EPA, Region II	April 22, 1977
Industrial Hygiene Survey No. 61-0232-78	USAEHA	July 11, 1977
Installation Pest Management Program Survey No. 61-0578-78	USAEHA	January 15, 1978
Potable/Recreational Water Quality Survey No. 31-61-0136-79 and Wastewater Engineering Survey No. 32	USAEHA	May 14, 1979
Occupational Health Survey No. 65-32-0984-80	USAEHA	September 4, 1979
Compliance Evaluation Inspections for NJ0020257 Permit at MOTBY	NJDEP	June 24, 1980
Installation Assessment of Military Ocean Terminal, Bayonne, New Jersey, Report No. 182	USATHAMA	September 1, 1980
Installation Pest Management Program Review No. 16-61-0578-81	USAEHA	September 15, 1980
Installation Integrated Pest Management Assessment No. 61-0579-81	USAEHA	September 15, 1980
Pest Resistance Special Study No. 44-0402-82	USAEHA	January 1, 1981
Compliance Evaluation Inspection for NJPDES	NJDEP	June 2, 1981
Hazardous Waste Consultation No. 37-26-0212-83	USAEHA	May 13, 1982
Installation Pest Management Program Review No. 61-0572-83	USAEHA	August 9, 1982
Environmental Evaluation Report of Emission Sources (at MOTBY)	EPA, Region II	September 24, 1982
Water Quality Engineering Consultation No. 32-24-8874-83, Ship Waste Handling Facilities	USAEHA	October 6, 1982
Occupational Health Survey No. 32-0110-83	USAEHA	December 13, 1982

Table B-1		
HISTORY OF ENVIRONMENTAL PROJECTS AT MOTBY		
Project/Report Title	Agency/Contractor	Date of Report
Leachate Investigation No. 38-26-0382-84	USAEHA	March 19, 1984
Air Pollution Consultation No. 21-0451-84: Evaluation of Air Pollution Impact Dry Dock Painting Operations	USAEHA	July 1, 1984
SPCC Compliance Inspection - Desk Review, MOTBY	Roy F. Weston, Inc. TAT/II	November 29, 1984
Potable/Recreational Water Quality Survey No. 62- 0128-85	USAEHA	January 14, 1985
Hazwaste Inspection, Administrative Order and Base Response	NJDEP, Division of Waste Management	March 7, 1985
Integrated Pest Management/Pest Resistance Assessment No. 44-0432-85	USAEHA	May 20, 1985
RCRA Compliance Inspection; EPA Hazwaste Inspection; Internal Hazwaste Inspection	EPA, Region II, Hazardous Waste Compliance Branch	June 24, 1986
Industrial Hygiene Survey of the International Terminal Operating Co. Warehouse Areas (Buildings 23, 24, 33, 43, 54, 64, 73, 74W, 74E, 83A)	Headquarters, US Army Medical Department Activities	July 25, 1986
Hazardous Waste Management Survey at MOTBY No. 37-26-0726-87	USAEHA	September 15, 1986
Hazardous Waste Facility Inspection at MOTBY	EPA	April 1, 1987
1988 Inspection	NJDEP, Division of Water Resources	January 1, 1988
Hazardous Waste Management Inspection at MOTBY	EPA	March 28, 1988
Industrial Hygiene Program Review No. 59-61- 0213-90	USAEHA	September 25, 1989
Phase I Remedial Investigation for MOTBY	Dames & Moore	September 29, 1989
1990 Facility-Wide AR-15 Investigation of Hazardous Waste at MOTBY	MTMCEA	January 1, 1990
Inspector General (IG) Environmental Inspection and Base Responses	DOD	May 23, 1990
Industrial Hygiene Study No. 55-61-0213-91 - Indoor Firing Range Building 72A	USAEHA	October 29, 1990
SPCC Field Inspection	EPA, Region II	April 12, 1991

Table B-1		
HISTORY OF ENVIRONMENTAL PROJECTS AT MOTBY		
Project/Report Title	Agency/Contractor	Date of Report
Preliminary Assessment Screenings (PASs) for Buildings 11, 12, 22, 31,32, 34, 35, 41, 42/1, 52A, 52C, 63, 64A, 82, 91A, 91F, 120, 130, Lots 202-205 and Lots 212-215	MOTBY Facility Engineering	January 1, 1992
Remedial Action Investigation and Analysis by Weston for Building 14	Roy F. Weston, Inc.	January 1, 1992
Mobilization Environmental Evaluation No. 32-24-H634-92	USAEHA	March 9, 1992
RCRA Inspection of MOTBY	EPA	March 20, 1992
Asbestos Management Plan, MOTBY	Foster Wheeler Enviroresponse, Inc.	July 1, 1992
Pest Management Survey No. 16-61-AW71-93	USAEHA	February 16, 1993
Multimedia Inspection (TSCA-PCBs, RCRA, NPDES, NSPS-Air, etc.)	EPA, Region II	December 7, 1993
1994 Hazardous Waste Report for MOTBY	NJDEP	January 1, 1994
Site Investigation Report by PMK Group for Building 104 and Building 235 USTs	PMK Group	October 17, 1994
Site Inspection Report for Wetlands at MOTBY	CENAN-OP-RW, Western Permits Section	October 18, 1994
Phase II Remedial Investigation for MOTBY	Dames & Moore	October 31, 1994
Environmental Compliance Assessment System (ECAS) Report, MOTBY	Geophex, Ltd.	December 1, 1994
Air Pollution Emission Assessment Study No. 42-21-M442-94, Boiler Test	USAEHA	April 26, 1995
Environmental Baseline Survey, Military Ocean Terminal, Bayonne	Ecology and Environment, Inc.	February 28, 1996

Table B-2
PROJECTS ASSOCIATED WITH INSTALLATION RESTORATION PROGRAM SITES

Site No.	PA/ SI	EA	RI/ RFI	FS/ CMS	RD/ CMD	PP	DD	RA/ CMI	Closeout	IRA/ ICM	LTM	NFRAP
1 - Landfill			✓									
2 - Former Navy Storage Yard			✓									
3 - Underground Storage Tanks			✓							✓		
4 - DRMO Drum Storage Area			✓									
5 - Battery Acid Pit			✓							✓		
6 - PCB Spill Area			✓							✓		
7 - Building 105 Drum Storage Area			✓							✓		
8 - Fire Training Area		✓	✓									
9 - DRMO Storage Area			✓									
10 - Boiler Plant USTs	✓		✓							✓		

Key:

DD = Decision Document.
 DRMO = Defense Reutilization Management Office.
 EA = Environmental Assessment.
 FS/CMS = Feasibility Study/Corrective Measure Study.
 IRA/ICM = Interim Remedial Action/Interim Corrective Action.
 LTM = Long-term Monitoring.
 NFRAP = No Further Response Action Planned.
 PA/RFA = Preliminary Assessment/RCRA Facility Assessment.
 PP = Proposed Plan.
 RA/CMI = Remedial Action/Corrective Measure Study.
 RD/CMD = Remedial Design/Corrective Measure Design.
 RFI = RCRA Facility Investigation.
 RI/FS = Remedial Investigation/Feasibility Study.
 SI = Site Investigation.
 USTs = Underground Storage Tanks.

C

Decision Document Summaries

At this time no decision documents or records of decision have been prepared for any parcel of land at MOTBY. This appendix will be used in subsequent versions of the BCP as a repository for summaries of these documents as they are prepared.

D**No Further Response Action Planned
(NFRAP) Summaries**

At this time no NFRAP summaries have been prepared for any OU or parcel of land at MOTBY. In subsequent versions of the BCP, this appendix will be used as a repository for summaries of these decisions as they are completed.

E

Conceptual Site Model Summaries

At this time, no conceptual site models have been developed for MOTBY. For future versions of the BCP, this appendix will be used as a repository to document conceptual site models as they are developed.

F

Approach to Address Environmental Justice Issues at MOTBY

Over the past decade, the effect of environmental pollution on particular population groups has received much attention. As a result, the President issued Executive Order 12898 on February 11, 1994. The Order requires certain federal agencies, including DoD, to the greatest extent practicable and permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

In response to the Order, the DoD issued its "Strategy on Environmental Justice" on March 24, 1995. The DoD strategy includes an implementation plan which focuses on institutional changes to ensure a healthy and safe environment for DoD activities conducted in the vicinity of minority or low-income populations. The implementation plan is flexible and is designed to accept changes recommended by the Interagency Working Group on Environmental Justice and comments received from the public.

At closing installations such as MOTBY, considerations of environmental justice must be examined in the context of cleanup activities and their relationship to land reuse and community redevelopment initiatives. The process of establishing cleanup priorities, determining relative risk, developing reuse plans, and other actions related to installation closure must ensure that environmental protection and environmental justice are adequately addressed.

Several significant issues related to environmental justice are applicable at MOTBY. These include:

- Outreach;
- Natural, Cultural, and Historical Resources;
- Risk Evaluation;
- Risk Communication;
- Cleanup Priorities;
- Brownfield or Urban Revitalization; and
- Deed and Lease Restrictions.

MOTBY is proactively addressing many of these issues in its environmental restoration, compliance, and natural, cultural, and historical resources strategies. MOTBY's approach to each one of these issues is summarized below.

Outreach. MOTBY will be developing a LR Plan which will establish the procedures for effective communication with all elements of the surrounding community on environmental issues.

A RAB has been formed to promote public involvement and provide a forum for public input with specific emphasis on the MOTBY BRAC cleanup. The RAB consists of seven representatives from the City of Bayonne and three representatives from MOTBY. RAB co-chairs include one individual from the community and one individual from MOTBY. Currently, RAB meetings are held quarterly, however, meetings have been held more frequently during review of the draft EBS.

Public hearings will be conducted to obtain community input on particular environmental documents. The installation plans to keep the community members informed through fact sheets and the maintenance of information repositories at the MOTBY and Bayonne public libraries.

Potential impacts on minority and low-income populations will be assessed through the NEPA process and through the development of the EIS. NEPA requires that DoD installations collect and analyze data on the socioeconomic makeup of the populations that may be affected by DoD activities.

Natural, Cultural, and Historical Resources. An inventory of natural, cultural, and historical resources at MOTBY will be developed under the EIS. In addition, the EIS will describe the potential impacts that the closure process may have on the resources. In the event that any significant resource sites are identified at MOTBY in the future, those sites will be protected in compliance with regulatory requirements.

Cleanup Priorities. The MOTBY BCT will develop an approach to identify the logical sequence of site investigation and cleanup activities at MOTBY. The sequencing will be based on several initiatives including:

- Consideration of DoA and MTMCEA realignment and disposal requirements and goals;
- Consideration of community reuse planning priorities;
- Expedited completion of early actions to mitigate any identified immediate risk to human health and the environment; and

- Restoration via site-specific early actions at locations where environmental condition directly impacts reuse instead of via long-term remedial actions that may not affect reusability.

These four criteria have direct environmental justice implications. Meeting these prioritization criteria ensures that environmental risks to on- and off-site populations are addressed in a timely manner and that reuse plans as presented by the community are considered in the cleanup process.

Risk Evaluation. NJDEP cleanup criteria were developed using human health risk scenarios for carcinogens and noncarcinogens. This means that there would be no significant human health risk to on- or off-site populations associated with media containing contaminant concentrations at or below NJDEP cleanup criteria. As a result, an evaluation of human health risk to future on- and off-site, residential and non-residential populations may be accomplished through a comparison of analytical data to NJDEP cleanup criteria.

With respect to ecological risk evaluation, requirements for sites in New Jersey are considered individually by NJDEP. When considered, National Oceanic and Atmospheric Administration and Ontario standards are sometimes used for comparison since no ecological-based cleanup criteria have been established by NJDEP. Requirements for ecological risk evaluation at MOTBY are currently under review.

Risk Communication. Issues relative to the potential for risks human health will be fully disclosed to the public through the various outreach activities during the closure process.

Brownfield or Urban Revitalization. The majority of land at MOTBY is developed. MOTBY consists of shipping areas, warehouses, maintenance areas, housing facilities, administration areas, a railroad classification yard, berths, and the dry dock area. The LRA is responsible for creating and implementing a reuse plan for MOTBY that mitigates the negative impacts of installation closure and meets the community's long-term goals. The LRA is responsible for ensuring community participation in the reuse planning process and for conducting public meetings to obtain community input.

Deed and Lease Restrictions. Deed and lease restrictions are a critical element in the disposal planning process for MOTBY because remedial actions at the installation may continue past the MOTBY property disposal. Issues such as access, liability for remedial action equipment and operation, impacts on redevelopment, and conflicts with construction

will be addressed as bid documents for the sale and development of MOTBY are prepared. Small, disadvantaged, and minority-owned businesses impacted from potential deed and lease restrictions will be considered throughout the disposal process.

G

Other Support Documentation

H

Glossary of Terms

Action Levels. Under CERCLA, the existence of a contaminant concentrations in the environment high enough to warrant action or trigger a response under the Superfund Amendments and Reauthorization Act of 1986 (SARA) and the National Oil and Hazardous Substances Contingency Plan. The term can be used similarly in other regulatory programs.

Administrative Record. A project file containing information used by the lead agency to make its decision on the selection of a response action under CERCLA. The record will be established in locations near the site or facility and is to be available for public review. A duplicate record is located in a central location, such as a regional or state office.

Asbestos. A mineral fiber that can pollute air or water and cause cancer when inhaled. EPA has banned or severely restricted its use in manufacturing and construction.

Background Concentration or Level. The amount of a pollutant present in the regional environment due to natural or ubiquitous sources.

Base Realignment and Closure Act (BRAC). The Base Closure and Realignment Act of 1988 (P.L. 100-526, 102 Stat. 2623) (BRAC 88 or BRAC 1) and the Defense Base Closure and Realignment Act of 1990 (P.L. 101-0510, 104 Stat. 1808) (BRAC 91, 93, 95) legislated the closure or realignment of military bases.

Base Transition Coordinator (BTC). The BTC is the DoD representative who serves as the primary point of contact for the public at a BRAC installation and assists in disposal and reuse planning and coordination for the property.

Bottom Up Program Review. The Bottom Up Program Review is a set of 33 review items which have been formulated to assess the status of an installation's environmental restoration activities and to develop effective environmental restoration strategies.

BRAC Cleanup Team (BCT). The BCT is formed to manage environmental programs for BRAC installations consisting of a military installation representative, EPA region representative, and state environmental agency representative.

BRAC Environmental Coordinator (BEC). On-site community liaison for environmental issues at a closure or realignment project. Also, person generally responsible for cleanup of a BRAC installation.

Carcinogen. Any substance that can cause or contribute to the production of cancer.

Chemical. Any element, compound, or mixture of elements and/or compounds.

Cleanup. Actions taken to deal with a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

Cleanup Levels. Chemical concentrations to which media must be remediated to protect human health or the environment.

Community Relations. The effort to establish two-way communication with the public to create understanding of cleanup programs and related actions, to assure public input into decision-making process related to affected communities, and to make certain that the

installation is aware of and responsive to public concerns. Specific community activities are required in relation to CERCLA remedial actions.

Community Relations Plan (CRP). A formal plan outlining community relation activities at a site. The plan is used to develop open communication and understanding between interested parties.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This Act is otherwise known as Superfund; it provides for liability, compensation, cleanup and emergency response for hazardous substances released to the environment. It was amended by SARA. Section 120 of CERCLA specifically addresses procedures to be followed for Federal facilities investigation and cleanup including BRAC installations. Section 120(h) was amended by CERFA.

Community Environmental Response Facilitation Act of 1992 (CERFA). This Act is an amendment to CERCLA which established new procedures for contamination assessment, remediation, and regulatory agency notification and concurrence for Federal facility closures. CERFA requires that military to identify uncontaminated property. Its primary goal is to accelerate the transfer of property that can be immediately reused and redeveloped.

Concentration. The amount of chemical present per amount of sample.

Conceptual Model. An analysis tool or method used to identify contaminant sources, exposure media, exposure routes, and receptor populations.

Disposal. Final placement or destruction of toxic, radioactive, or other wastes; surplus or banned pesticides or other chemicals; polluted soils; and drums containing hazardous wastes from removal actions or accidental releases. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep well injections, incineration, or other available technologies.

Downgradient. A location that is in the direction of natural migration, typically used in relation to groundwater, surface water, or air flow.

Early Action. Early actions are remedial actions or strategies implemented to respond to immediate site threats or significantly reduce risks quickly. Under early actions, sources of possible contamination and risk are removed while providing data used to develop effective permanent remedial action strategies. Treatability studies may also be implemented as early actions. Early actions are typically limited in scope and are followed by other actions that complete site restoration for the long-term. Examples of early actions are the construction of a temporary landfill cap and removal of contaminated soil to eliminate direct contact potential or prohibit contamination of groundwater. Early actions can be implemented under both the environmental restoration and compliance programs.

Effluent. Treated or untreated wastewater that flows out of a treatment plant, sewer, or industrial outfall. This generally refers to discharges to surface water.

Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA). This Act is TITLE III of SARA. It requires certain facilities to coordinate emergency planning with local and regional authorities and prepare hazardous material inventory and release data (Tier I and

II and Toxic Release Inventory Reports). Executive Order 12856, signed August 3, 1993, requires that Federal facilities comply with EPCRA.

Endangered Species. Animals, birds, fish, plants, or other living organisms threatened with extinction by man-made or natural changes in the environment. Requirements for declaring a species endangered are contained in the Endangered Species Act.

Environment. The sum of all external conditions affecting the life, development and survival of an organism.

Environmental Assessment (EA). A document prepared to evaluate the environmental impacts of a Federal action in compliance with NEPA when an EA may not be necessary. If the EA indicates that there may be significant adverse impacts to the environment from the proposed action, and EIS is required. If no significant impact is identified in the EA, a Finding of No Significant Impact (FONSI) is required.

Environmental Impact Statement (EIS). A document required of federal agencies by NEPA for major projects or legislative proposals significantly affecting the environment. A tool for decision-making, it describes the positive and negative effects of the undertaking and lists alternative actions.

Feasibility Study. A description and analysis of the potential cleanup alternatives for a site. The FS usually recommends selection of a cost-effective alternative. Typically, an FS starts concurrent with a remedial investigation (RI); together, they are commonly referred to as an "RI/FS".

General Permit. A permit applicable to a class or category of activity.

Groundwater. The supply of fresh water found beneath the Earth's surface, usually in aquifers, which is often used for supplying wells and springs.

Habitat. the place where a population (e.g., human, animal, plant, microorganism) lives and its surroundings, both living and nonliving.

Hazardous Materials. Substances that may pose a risk of endangering human health or the environment. Typically used to identify hazardous substances which serve an industrial function which are not yet used or spent.

Hazardous Wastes. By-products of society or industry that can pose a substantial or potential hazard to human health or the environment when improperly managed. Hazardous wastes normally possess at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appear on special EPA lists.

Hot Spot. Areas of environmental contamination which pose an immediate threat to human health or the environment and require immediate remedial action.

Influent. Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.

Inorganic Chemicals. Chemicals that do not contain carbon and are evolved from natural mineral sources.

Installation Restoration Program (IRP). A program implemented under the Defense Environmental Restoration Program to investigate and remediate DoD installations. The IRP conforms with the National Contingency Plan and CERCLA and applies guidelines promulgated by the EPA. The IRP for active installations is funded by the Defense Environmental Restoration Account, and the IRP for BRAC installations is funded through the Military Construction Act.

Landfills. Sanitary landfills are land disposal sites for nonhazardous solid wastes at which the waste is spread in layers, compacted to the smallest practical volume, and cover material applied at the end of each operating day. Secure chemical landfills are disposal sites for hazardous waste. They are selected and designed to minimize the chance of release of hazardous wastes into the environment.

Media. Specific environments - air, water, soil - that are the subject of regulatory concern and activities.

Monitoring. Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media.

Monitoring Wells. Wells installed to routinely observed groundwater levels or to systematically collect water samples.

National Environmental Policy Act (NEPA). This Act was passed in 1970 to encourage the assessment of environmental impact in Federal decision-making processes. The Act requires the preparation of an EA or EIS for significant Federal actions.

National Hazardous Substances Pollution Contingency Plan (NCP). This plan provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances in accordance with CERCLA and the Clean Water Act (CWA).

National Pollutant Discharge Elimination System (NPDES). A provision of the Clean Water Act that prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or (where delegated) a tribal government on an Indian Reservation. Federal regulation that provides for a timely, effectively response by various federal agencies and other organizations to discharges and releases of hazardous substances to protect public health, welfare, and the environment. NPDES elements include industrial and sanitary wastewater discharge permitting programs and stormwater permitting programs.

New Jersey Pollutant Discharge Elimination System (NJPDES). The NPDES program as administered by NJDEP.

No Further Response Action Planned (NFRAP). The designation given to a site when investigation results indicate a site does not require remedial action or, after adequate remedial actions have been completed.

Operable Unit (OU). An environmental restoration unit identified as part of the CERCLA environmental restoration process to aid in the development of a remedial action strategy. Operable units may address geographic portions of an installation, specific installation problems, different phases of an action, sets of actions performed over time or concurrent actions located in different portions of the installation.

Organic Chemicals/Compounds. Animal or plant-produced substances containing mainly carbon, hydrogen, and oxygen.

Polychlorinated Biphenyls (PCBs). A group of toxic, persistent chemicals used in transformers and capacitors for insulating purposes and in gas pipeline systems as a lubricant. Further sale or new use of PCBs was banned in 1979.

Pollutant. Generally, any substance introduced into the environment that adversely affects the usefulness of a resource.

Presumptive Remedy. Proven and reliable remedial technologies associated with specific types of contamination.

Proposed Plan (PP). A document that identifies the preferred remedial action alternative for a site and which provides a brief summary of all alternatives studied in the detailed analysis phase of an RI/FS.

Project Team. The group of people selected by the BCT to assist in the formulation of strategies and assessments associated with the BRAC process.

Record of Decision (ROD). A document that formalizes the selection of remedial actions which are to be implemented at an NPL site. A ROD certifies that the remedy selection process was carried out in accordance with CERCLA and with the NCP. It describes the treatment, engineering, and institutional components of the remedial action and remediation goals. The ROD roughly equates to a Decision Document for a non-NPL site.

Remedial Action (RA). The final phase of the CERCLA environmental restoration process during which the actual construction of the remedy or implementation phase of site cleanup occurs. When all phases of the remedial activity at the site have been completed in compliance with the terms of a ROD, the site can be designated NFRAP.

Remedial Design (RD). The engineering phase of the CERCLA environmental restoration process during which technical drawings and specifications are developed for the subsequent Remedial Action. These specifications are based upon the detailed description of the remedy and the cleanup criteria provided in a ROD.

Remedial Investigation. The CERCLA environmental restoration process phase undertaken to determine the nature and extent of the problem represented by a release of CERCLA hazardous substances. An RI includes multimedia sampling, field studies, monitoring, and data analysis. Often, a baseline risk assessment and ecological evaluation are completed with an RI. A remedial investigation is usually done concurrent with a feasibility study. Together, they are commonly referred to as RI/FS.

Remediation. Any reduction in the potential of contaminants to impact either human health or the environment.

Removal Action. Short-term immediate actions taken to address releases of hazardous substances that require expedited response.

Reportable Quantity. The quantity of a hazardous substance that triggers certain notifications under CERCLA. If a substance is released in amounts exceeding its reportable quantity,

the release must be reported to the National Response Center, the State Emergency Response Commission, and community emergency coordinators for areas likely to be affected.

Resource Conservation and Recovery Act (RCRA). This Act is Federal law introduced in 1976 as an amendment to the Solid Waste Disposal Act. RCRA consists of 9 subtitles including subtitles C, D, and I, which outline management requirements for hazardous waste, solid waste, and underground storage tanks containing petroleum products, respectively.

Response Action. A CERCLA-authorized action involving either a short-term removal action or a long-term removal response that may include but is not limited to: removing hazardous materials from a site to an EPA-approved hazardous waste facility for treatment, containment, or destruction; containing the waste safely on site; destroying or treating the waste on site; and identifying and removing the source of groundwater contamination and halting further migration of contaminants.

Restoration Advisory Board (RAB). A forum for discussion and exchange of cleanup information between the DoD installation representatives and the public at BRAC installations where property will be available for transfer. The RAB consists of representatives from DoD, EPA, state environmental agency, and local community representatives, and is jointly chaired by the BEC and a local community member.

Restoration. Measures taken to return a site to previolation conditions.

Risk Assessment. The qualitative and quantitative evaluation performed in an effort to define the risk posed to human health and/or the environment by the presence or potential presence and/or use of specific pollutants.

Risk Communication. The exchange of information about health or environmental risks between risk assessors, risk managers, the general public, new media, interest groups, etc.

Solid Waste. Nonliquid, nonsoluble materials ranging from municipal garbage to industrial wastes that contain complex, and sometimes hazardous, substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Technically, solid waste also refer to liquids and gases in containers.

Superfund Amendments and Reauthorization Act of 1986 (SARA). The law and amendments to CERCLA that address liability, compensation, cleanup, and emergency response for hazardous substance releases. Title III of SARA established the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).

Superfund. The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term remedial activities. These activities include establishing the NPL, investigating sites for inclusion on the NPL, determining their priority level on the list, and conducting and/or supervising the ultimately determined remedy and other remedial actions.

Toxic. Capable of producing a harmful effect to living organisms.

Toxic Pollutants. Materials contaminating the environment that cause death, disease, and birth defects in organisms that ingest or absorb them. The quantities and length of exposure necessary to cause these effects can vary widely.

Toxic Substance. A chemical or mixture that may present an unreasonable risk to human health or the environment.

Underground Storage Tanks (USTs). Tanks located all or partially under ground that are designed to hold gasoline or other petroleum products or chemical solutions.

Wastewater. The spent or used water from individual homes, a community, a farm, or an industry.

Well. A bored, drilled, or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension and whose purpose is to reach underground water supplies or oil, or to store or bury fluids below ground.

Zone. A geographically contiguous area amenable to investigation as a single unit identified to organize installation field efforts, group data from multiple investigations, facilitate the development of conceptual site models, prepare detailed maps and otherwise manage investigation activities.